BACKGROUND

Facility Description

Associated Plating Company ("Associated Plating" or "the Facility") specializes in nickel metal plating, but also performs plating operations with copper, tin, tin-lead alloys, gold and silver. No cadmium or chromium plating is performed by the Facility. The Facility is located at 936 Ann St., Santa Fe Springs, CA, and has occupied its current location since the mid-1970s. The Facility currently employs 52 workers. Per the manifest database of the California Department of Toxic Substance Control (DTSC), Associated Plating generates sufficient quantities of RCRA hazardous waste to qualify as a Large Quantity Generator.

Per Associated Plating's 2001 Biennial Report, the Facility generated the following hazardous wastestreams:

- Rinse water from electroplating operations containing traces of lead (D008)
- Wastewater treatment sludge from plating operations containing metal hydroxide (F006)
- Rinse water from electroplating operations containing traces of cyanides (D003)
- Spent stripping solutions containing copper and nickel (D002)
- Spent tetrachloroethylene used for degreasing parts (F001)
- Spent gold stripping solution containing cyanide (F009)
- Spent silver and gold plating solutions containing cyanide (F007)
- Waste paint material (D001)

Associated Plating submitted an initial Notification of Hazardous Waste Activity on 8-15-80 identifying itself as a generator of F001, F006, F007, F008, and F009 hazardous waste (Attachment 2) and was assigned an EPA identification number of CAD043079110. The Facility renotified on 11-15-99 to inform EPA of a change of ownership, this time identifying itself as a large quantity generator of the following RCRA hazardous waste: D002, D003, F001, F006, F008 and F009 (Attachment 3).

Enforcement History

The EPA inspection database indicates that Associated Plating was previously inspected on 11-5-1992 by the California Department of Toxic Substance Control (DTSC) where pre-transport related generator violations were noted and subsequently corrected. The Facility was last inspected by the Santa Fe Springs Fire Department Environmental Protection Division on 2-7-02 (Attachment 4), where the following violations were noted:

- Labeling violations (no labels, unreadable labels, incomplete labeling);
- Storage together of incompatible wastes;
- Storage of hazardous wastes for over 90 days;
- Releases of hazardous wastes;
- Incomplete training records.

The Facility returned to compliance on 2-26-02.

Plating Process Description

Associated Plating operates four plating lines, as follows:

Line 1: nickel, alkaline tin and acid tin plating;
Line 2: tin, tin-lead, nickel plating (for parts requiring solderability);
Line 3: nickel plating barrel line (for large volumes of small parts (nuts, bolts, etc.). Parts to be plated are placed in a barrel with a mesh screen, and the barrel is rotated in the plating solution);
Line 4: Electroless nickel plating (used on aluminum substrates).

Plating operations differ from line to line, but the basic operation is as follows:

Tank 1: Alkaline soak (removes oils and dirt from substrate);
Tank 2: Electro-cleaner. Part is placed in an alkaline solution through which an electric current is run. Tanks vary in size, according to which line is used, from 70 gallons to 1300 gallons. Solution pH ranges from 12 to 13. Tank is changed every 3 to 6 months. Spent solution is processed through the Facility's wastewater treatment system;
Tank 3: Rinse tank;
Tank 4: Acid bath: 30% hydrochloric acid solution. Prepares substrate for the plating process. Bath is changed approximately every 2 months. Spent acid is neutralized on site, metals are precipitated out, and the remaining solution is processed through the wastewater treatment system;
Tank 5: Nickel strike tank (used in nickel plating lines). Provides a more receptive substrate for the subsequent nickel plating. Solution consists of nickel chloride and hydrochloride acid, with an electric current passed through it;
Tank 6: Rinse tank;
Tank 7:Nickel plating tank (400 gallons): Electroplating operation using nickel sulfamate;

For parts requiring only a nickel plating, the process ends here. For a part that is to be gold-plated (with a nickel substrate) the process continues as follows:

Tank 8 Gold strike. Solution of potassium gold cyanide with an inert anode of titanium mesh with a platinum coating. Solution is used indefinitely without changing, but with occasional replenishing;
Tank 9 Gold plating tank. Solution of potassium gold cyanide, with an inert cathode. Electric current is passed through the solution and the part acts as a cathode, with the gold deposited on it;
Tank 10 Gold drag out. A static tank. Current passing through the solution deposits trace amounts of gold on a plating cell for gold recovery.

The Facility also has a small laboratory in which the plating solutions are analyzed on a weekly basis. Both wet analysis and atomic adsorption analysis are performed in the lab. Solutions analyzed are returned to the baths once the analysis has been completed.

INVESTIGATION

The purpose of the investigation was to determine Associated Plating's compliance with applicable federal environmental statutes and regulations, and in particular, the Resource Conservation and Recovery Act (RCRA), as amended, the regulations provided in the Code of Federal Regulations (CFR), Chapter 40, Parts 261-265, 268 and 279, and the California Code of Regulations (CCR), Title 22, Division 4.5 and the California Health and Safety Code, Division 20, Chapter 6.5. On November 17, 2003, Clint Seiter and Aubrey Baure, representing the U.S. Environmental Protection Agency (EPA), and accompanied by Richard Kallman, representing the Santa Fe Springs Fire Department, conducted an unannounced site investigation at Associated Plating, Santa Fe Springs, CA (EPA ID# CAD043079110). Upon providing introductions and credentials, the inspectors contacted Ms. Diana Crane, the Facility's quality manager. The inspectors explained that this was a routine inspection to determine whether or not the Facility was in compliance with federal and state regulations concerning the proper management of RCRA and non-RCRA hazardous wastes. The inspection would consist of a walkthrough of tbe Facility, focusing on those areas where hazardous wastes were handled or stored, with pbotos taken, followed by a record review and a post-inspection outbriefing. In the course of the pre-walkthrough briefing, the inspectors provided Ms. Crane with a copy of the Small Business Regulatory Enforcement Fairness Act (SBREFA) Information Sheet.

Walk-Through Inspection (see Attachment 5 for a Facility layout)

-Plating Line 5

The inspectors noted the following:

- Four open, 15-gallon carboys containing spent nickel filters (a non-RCRA, California only hazardous waste) (Attachment 1, Photo 1). The carboys were unlabeled. In the Facility's letter to EPA dated December 22, 2003 (Attachment 7), these filters were identified as a non-RCRA, California-only hazardous waste.

- Plating Line 1

The inspectors noted the following:

- One open, unlabeled, green 5-gallon bucket, 3/4 filled with a black liquid (Attachment 1, Photo 2). The Facility representative was unable to identify the bucket's contents at the time of the inspection. In the Facility's letter to EPA dated December 22, 2003 (Attachment 7), this liquid was identified as "chromate rinse used in processing" returned to the rinse system;
- One open, unlabeled 5-gallon bucket, 1/8 full of unidentified black liquid (Attachment 1, Photo 3). In the Facility's letter to EPA dated December 22, 2003 (Attachment 7), this liquid was identified as "chromate rinse used in processing" returned to the rinse system;

- One open, unlabeled 15-gallon carboy, 1/4 full with a clear liquid (Attachment 1, Photo 4). In the Facility's letter to EPA dated December 22, 2003 (Attachment 7), this liquid was identified as "chromate rinse used in processing" returned to the rinse system;
- Two open, unlabeled 30-gallon containers of a clear liquid (Attachment 1, Photo 5). In the Facility's letter to EPA dated December 22, 2003 (Attachment 7), this liquid was identified as "chromate rinse used in processing" returned to the rinse system;
- One 10-gallon container with a dark yellow liquid (Attachment 1, Photo 5) identified as "chromate rinse used in processing" returned to the rinse system;
- One unlabeled 55-gallon drum. In the Facility's letter to EPA dated December 22, 2003 (Attachment 7), this liquid was identified as "copper solution removed from tank during pump repair - returned to tank";
- One 55-gallon, closed drum, labeled with the words: "chromium etch, cleaners line 4, tank 4, 6/11/03". In the Facility's letter to EPA dated December 22, 2003 (Attachment 7), this was identified as "chromate rinse used in processing" that was returned to the rinse system;
- One 55-gallon, unlabeled, closed drum. In the Facility's letter to EPA dated December 22, 2003 (Attachment 7), this liquid was identified as "chromate solution that had been decanted from a process tank - reused";

- Between Lines 1 and 3

The inspectors noted the following:

- One open, unlabeled 55-gallon drum, 1/8 full (Attachment 1, Photo 6). In the Facility's letter to EPA dated December 22, 2003 (Attachment 7), this liquid was identified as "rinse water from chromate processing";
- Two unlabeled 15-gallon carboys (Attachment 1, Photo 7). In the Facility's letter to EPA dated December 22, 2003 (Attachment 7), this liquid was identified as "spent sulfuric acid solution used for hourly cleaning of the electro coagulation unit". Per this letter, this was identified as a D002 hazardous waste, with an accumulation start date of 10-17-03. The waste was transported offsite for disposal on 12-16-03;
- One open, unlabeled 55-gallon drum, 3/4 full of a greenish liquid (Attachment 1, Photo 8). In the Facility's letter to EPA dated December 22, 2003 (Attachment 7), this liquid was identified as "in-process sulfuric acid used for hourly cleaning of the electro coagulation unit";
- Three open, unlabeled 15-gallon containers, approximately 1/4 full (Attachment 1, Photo 9). In the Facility's letter to EPA dated December 22, 2003 (Attachment 7), this liquid was identified as "evaporated chromate rinses. Returned to process tank to recover chemistry."
- Four, closed 55-gallon drums (Attachment 1, Photo 10):
  - 1st drum labeled: "line 3, copper flow, 3-13-03";
  - 2nd drum labeled: "line 3, copper flow, 3-13-03";
  - 3rd drum labeled: "copper rinse, 3-13-03";

- 4th drum labeled: "copper rinse, 3-13-03";

In the Facility's letter to EPA dated December 22, 2003 (Attachment 7), drums' contents were identified as "water collected from routine berm cleaning" which was subsequently treated onsite via the Facility's wastewater treatment system;

- Two open black, 15-gallon carboys, 1 filled with a white solid, one filled with a white solid and 3 inches of liquid (Attachment 1, Photo 11). In the Facility's letter to EPA dated December 22, 2003 (Attachment 7), solids identified as "solids from copper tank maintenance", with an F008 RCRA hazardous waste code. Per the letter the waste had been generated on 9-12-03 and had yet to be disposed of.

- Between Lines 2 and 4

The inspectors noted the following:

- Two tubes (one yellow, one black), filled with a milky fluid (Attachment 1, Photo 12). In the Facility's letter to EPA dated December 22, 2003 (Attachment 7), this liquid was identified as "in-process solution used for tin stripping";
- One open, 5-gallon red bucket with a "Hazardous Waste" label, 1/8 full of clear liquid with a yellow deposit (Attachment 1, Photo 13). In the Facility's letter to EPA dated December 22, 2003 (Attachment 7), this liquid was identified as "dehydrated rinses from chromate treatment", an F006 RCRA hazardous waste. Per the letter, the waste's accumulation start date was 9-12-03 and it had yet to be disposed of;

- Blasting Booth

Per the Facility representative, a mixture of silicon aluminum oxide and pumice is used as a blasting medium. Spent blasting medium is disposed of with the filter cake generated from the Facility's waste water treatment system (Attachment 1, Photo 14).

- Electroless nickel pumping room

Per the Facility representative, the pipes which convey the electroless nickel plating solution expand due to the heat generated in the Facility, and leak solution. There was an open catch basin underneath tbe pipes to collect any solution that leaks from the pipes. There was also an open, unlabeled bucket containing discarded steel wool plated witb nickel (with spent electroless nickel plating solution, the nickel is plated out onto steel wool before the solution is processed out through the Facility's wastewater treatment system). This nickel plated steel wool is a non-RCRA, California only hazardous waste.

- Line 3

The inspectors noted the following (Attachment 1, Photo 15):

- One open, unlabeled, blue 5-gallon bucket;
- One open, unlabeled, white 5-gallon bucket containing an unidentified brown liquid;
- One open, unlabeled, white 2-gallon bucket containing an unidentified brown liquid;
- One open, unlabeled, red 5-gallon bucket containing an unidentified black liquid;

The Facility's letter to EPA dated December 22, 2003 (Attachment 7), stated that these buckets contained "alkaline cleaner from tank skimming". Per the Facility letter, this was a D002 RCRA hazardous waste generated on 11-17-03 and treated on site on 11-19-03.

- One open, unlabeled, blue, 15-gallon drum, 3/4 filled with black liquid. The Facility's letter to EPA dated December 22, 2003 (Attachment 7), stated that this drum contained "cleaner sludge from tank maintenance"(Attachment 1, Photo 16) that was returned to the process tank.

- Waste Storage Yard (Stripping Area)

Per the Facility representative, occasionally errors occur in the nickel plating process, and the part has to be stripped of the nickel by immersion in a hydrochloric acid solution and replated. Spent stripping solution is stored in this area for neutralization.

The inspectors noted 21 55-gallon drums of spent electroless nickel plating solution (a non-RCRA hazardous waste) in the stripping area. None of the drums were labeled (Attachment 1, Photo 17). The immediate stripping room consisted of a 15'x10' bermed area covered with a grate (Attachment 1, Photo 18). The inspectors noted that the area beneath the grating was filled with liquid. A piece of litmus paper was applied to the liquid, and the inspectors determined that the liquid had a pH of approximately 1, which would qualify the liquid as a D002 RCRA corrosive hazardous waste.

-Waste Storage Yard (Main Area)

The main waste storage yard was a large, enclosed exterior area filled with 55-gallon drums, none of them labeled except for a number written on the sides or tops (Attachment 1, Photos 19-21). The Facility representative informed the inspectors that numbers identified the drums in a central tracking system database. Per the representative, many of the drums contained hazardous wastes (either RCRA or non-RCRA, California only), some contained non-hazardous waste, and some contained product. The representative said that the database indicated there were 193 drums in the yard. This conformed to the rough estimate that the inspectors made (a more accurate count was difficult because drums were dispersed in various parts of the yard). In the Facility's letter to EPA dated December 22, 2003 (Attachment 7), the Facility provided an inventory of the drums, identifying their contents, their waste codes (if applicable) and their accumulation start dates, when possible. Based upon this inventory, the following table summarizes the RCRA hazardous waste containers stored in the waste storage yard at the time of the inspection:

TABLE 1					
Drum #	**Waste name**	**Waste code**	**Accumulation start date**	**Disposal date**	**# days stored**
1	Nickel strip	D002	8-7-03	12-12-03	128
2	Nickel strip	D002	8-21-03	12-12-03	114
5	Nickel strip	D002	8-7-03	12-12-03	128
6	Nickel strip	D002	8-21-03	12-12-03	114
7	Nickel strip	D002	9-4-03	12-12-03	100
9	Unknown acidic	D002	unknown*	12-10-03	?
25	Unknown acidic	D002	10-8-03	12-10-03	64
26	Unknown acidic	D002	10-9-03	12-10-03	63
27	Unknown acidic	D002	10-11-03	12-10-03	61
30	Unknown alkaline	D002	unknown*	12-5-03	?
35	Nickel strip	D002	9-11-03	12-12-03	93
36	Nickel strip	D002	9-25-03	12-12-03	79
40	Silver strip	D002	unknown*	still at site	?
41	Silver strip	D002	unknown*	still at site	?
42	Nickel strip	D002	9-18-03	12-12-03	77
47	Nickel strip	D002	10-16-03	12-12-03	58
49	Nickel strip	D002	7-24-03	12-12-03	142
52	Unknown acidic	D002	10-10-03	12-5-03	57
55	Liquid from filters	F006	10-3-03	10-17-03	14
60	Unknown acidic	D002	10-15-03	12-10-03	57
61	Unknown acidic	D002	9-22-03	12-10-03	80
62	Unknown acidic	D002	9-8-03	12-10-03	94
64	Unknown acidic	D002	unknown*	12-10-03	?

Drum #	Waste name	Waste code	Accumulation start date	Disposal date	# days stored
66	Unknown acidic	D002	unknown*	12-10-03	?
67	Unknown acidic	D002	8-9-03	12-4-03	118
68	Unknown acidic	D002	9-9-03	12-10-03	93
81	Unknown acidic	D002	10-22-03	12-10-03	50
84	Unknown acidic	D002	10-31-03	12-10-03	41
85	Unknown acidic	D002	9-18-03	12-10-03	40
86	Unknown acidic	D002	unknown*	12-10-03	?
102	Unknown acidic	D002	unknown*	11-17-03	?
103	Unknown acidic	D002	unknown*	12-5-03	?
104	Unknown acidic	D002	unknown*	12-5-03	?
105	Unknown acidic	D002	10-28-03	12-5-03	39
106	Unknown acidic	D002	unknown*	12-10-03	?
107	Unknown acidic	D002	unknown*	12-5-03	?
176	Nickel strip	D002	11-6-03	12-12-03	37

* In a post-inspection telephone conversation, the Facility representative informed the inspector that it was impossible to ascertain the accumulation start dates of these containers, many of whom were stored on the Facility premises when she first began her employment at the Facility in July, 2003.

During the inspection the inspectors informed the Facility representative that all drums of RCRA and non-RCRA hazardous wastes had to conform to the regulatory labeling requirements as described in Title 22 of the California Code of Regulations (CCR). Because the drums were so tightly packed together, approximately half of them lacked access, as is required under CCR Title 22 §66265.35.

The inspectors also noted the following:

- six supersacs (one of which was unlabeled) that were identified by the Facility representative as containing F006 filter cake (Attachment 1, Photo 22) (In the Facility's 12-22-03 letter to EPA, the Facility included a manifest dated 9-12-03 for 2 cubic yard containers of F006 filter cake. This would substantiate the Facility's claim that the

unlabeled supersac of filter cake noted during the 11-17-03 inspection had been there for less than 90 days);

- one 1200-gallon open tank, labeled only "treated sludge"(Attachment 1, Photos 23 and 24). There was a clear liquid in the tank, with approximately 2" of freeboard. In the Facility's December 22, 2003 letter, the Facility identified the tank's contents as "spent cleaner solution", with a D002 RCRA hazardous waste code. The Facility representative was unable to provide an accumulation start date.
- two unlabeled 2500 gallon tanks, filled, according to the Facility representative, with "cadmium treatment coagulate" (Attachment 1, Photo 25), which, per the Facility representative, is part of the closed loop rinse system.

The inspector also noted that there was no immediate access to an internal alarm in the waste storage area, as required under CCR Title 22 §66265.34(a).

- Analytical Lab

The inspectors noted a 1-gallon container with a hazardous waste label that was not filled out, except for the words "Sulfuric Acid" (Attachment 1, Photo 26). In the Facility's letter to EPA dated December 22, 2003 (Attachment 7), the Facility identified this as a product used in lab analysis, not a waste.

The inspectors also noted two open, unlabeled 5-gallon buckets of plating solutions slated for lab analysis, identified as acidic and alkaline titration solutions from lab analysis. Per the facility representative, these solutions are poured back into the tanks after the testing has been completed.

Record Review

Manifests: the inspectors noted no manifest discrepancies.

Biennial Report, Contingency Plan, Training Records: the Facility representative was not able to readily locate these documents. The inspectors requested that, once located, she mail them to the EPA for review. Training records and manifests for 2004, 2003 and 2002 were submitted to EPA in the Facility's December 22, 2003 letter (Attachment 7). No violations were noted upon review of these documents.

The facility's contingency plan was submitted on January 23, 2004. A review of this document revealed that the contingency plan conformed to the regulatory requirements as described in CCR Title 22 §66265.52 except that it lacked a list of all emergency equipment, including the location and brief description of each device.

Post Inspection

On December 2, 2003, EPA mailed to the Facility a 3007(a) Request For Information letter, requesting the following (Attachment 6):

- **In the print-outs provided of 186 waste containers in the waste storage yard:**
  - **the waste codes (RCRA and/or non-RCRA, California only) for the contents of each container;**
  - **the accumulation start date (i.e., when the container was first filled with the waste) with any available documentation, for each container.**

- **Copies of all hazardous waste manifests for the years 2001, 2002 and 2003;**

- **Training records as described in Title 22 of the California Code of Regulations §66265.16(d)(1)-(4), that is:**
  - **the job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job;**
  - **a written job description for each position listed;**
  - **a written description of the type and amount of both introductory and continuing training that will be given to each person listed above;**
  - **records that document that the training or job experience required have been completed.**
- **Waste determinations of the various unlabeled containers noted along the plating lines during the 11-17-04 inspection (as detailed above in this report).**

The Facility responded with a letter to EPA dated December 22, 2003 (Attachment 7), which included the information referenced in the report above.

On January 23, 2004, the facility submitted a copy of its contingency plan to EPA as described above.

On February 24, 2004 a follow-up Case Development Inspection was conducted on Associated Plating. The inspection revealed that the facility's housekeeping had substantially improved. There were no longer any open, unlabeled waste containers between the plating lines, and the containers previously noted in the waste storage area during the first inspection had been removed.

POTENTIAL RCRA VIOLATIONS

Failure to make a hazardous waste determination

Title 22 §66262.11
(40 CFR §262.11)

A person who generates a waste shall determine if that waste is hazardous.

The facility did not make hazardous waste determinations for the wastewater beneath the grate in the stripping room.

Satellite Accumulation Area Labeling Requirements

Title 22 §66262.34(e)(1)(C);
Title 22 §66262.34(e)(1)(E)
(40 CFR §262.34(c))

A generator may accumulate as much as 55 gallons of hazardous waste at or near any point of generation if each container used for onsite accumulation is labeled with the words "Hazardous Waste" and with the following information:
(A) the initial date of waste accumulation is clearly marked and visible for inspection on each container used for accumulation of hazardous waste;
(B) composition and physical state of the waste;
(C) the particular hazardous properties of the waste;
(D) the name and address of the person producing the waste.

The following satellite accumulation area hazardous waste containers did not have this labeling information:

- 2 unlabeled 15-gallon carboys of spent sulfuric acid (D002) between Lines 1 and 3;
- 2 15-gallon carboys of F008 hazardous waste between Lines 1 and 3;
- 1 open, 5-gallon red bucket, 1/8 full of F006 hazardous waste between Lines 2 and 4;

- 4 open buckets of alkaline cleaner from tank skimming (D002) by Line 3;

90-Day Hazardous Waste Storage Area Labeling Requirements

Title 22 §66262.34(a)(3) and (f) (40 CFR §262.34(a)(3))

Each container used for onsite accumulation of hazardous waste shall be labeled or marked clearly with the words "Hazardous Waste". Additionally, all containers shall be labeled with the following information:

- the initial date of waste accumulation is clearly marked and visible for inspection on each container used for accumulation of hazardous waste;
- composition and physical state of the waste;
- the particular hazardous properties of the waste;
- the name and address of the person producing the waste.

The Facility did not provide this labeling information for the following waste containers in the 90-day storage yard:
- All the containers listed in the above TABLE 1;
- 1 supersac of F006 filter cake;
- 1 1200-gallon tank of D002 spent cleaner solution.

Open Containers

Title 22 §66265.173(a) (Article 9) (40 CFR §265.173(a))

Title 22 §66262.34(e)(10) states that a generator may accumulate hazardous waste on-site without a permit provided that the generator complies with the applicable requirements of articles 9 of chapter 15. Title 22 §66265.173(a) (Article 9) states that a container holding hazardous waste must always be closed during storage, except when it is necessary

to add or remove waste.

The following hazardous waste containers were open at the time of the inspection:

- 2 open 15-gallon carboys of F008 RCRA hazardous waste between Lines 1 and 3;
- 1 open, 5-gallon red bucket, 1/8 full of F006 hazardous waste between Lines 2 and 4;
- 4 open buckets of alkaline cleaner from tank skimming (D002) by Line 3;

Storage over 90 days

Title 22 §66262.34(a)
(40 CFR §262.34(a))

A (large quantity) generator may accumulate hazardous waste on-site for 90 days or less without a permit.

A minimum of 10 55-gallon drums of D002 nickel stripping solution or unknown acidic solution were stored on the facility premises for over 90 days.

Maintenance and operation of facility

Title 22 §66265.31
(40 CFR §265.31)

Per Title 22 §66262.34(a)(4), a generator may accumulate hazardous waste on-site for 90 days without a permit provided that the generator complies with the requirements in articles 3 and 4 of chapter 15 and section 66265.16.

Title 22 §66265.31 (Article 3) states that facilities shall be maintained and operated to minimize the possibility of any unplanned sudden or non-sudden release of hazardous waste wbich could threaten human health or the environment.

The bermed area beneath the grate in the stripping room was filled with a D002 hazardous waste.

Waste Storage Area Internal Alarm

Title 22 §66265.34(a)

(40 CFR §265.34(a))

Title 22 §66265.34(a) (Article 3) states whenever hazardous waste is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation must have immediate access to an internal alarm or emergency communication device.

There was no immediate access to an alarm or communication device in the Facility's waste storage area.

Lack of aisle space

CCR Title 22 §66265.35
(40 CFR §265.35)

Title 22 §66265.35 (Article 3) states that the owner must maintain aisle space to allow unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment.

Tanks

Approximately half of the drums in the waste storage yard lacked proper aisle space.

- Tank certification
Title 22 §66265.191(a)
(40 CFR §265.191(a))

Title 22 §66262.34(a) states that a generator may accumulate hazardous waste on-site without a permit provided that tbe generator complies with the applicable requirements of article 10 of chapter 15. Title 22 §66265.191(a) (Article 10) states that the facility owner must keep on file at the facility a written assessment reviewed and certified by an independent, qualified, professional engineer, that attests to tbe tank system's integrity.

The facility did not have this assessment performed by a qualified engineer for the 1200-gallon open tank of treated D002 sludge.

- Tank inspections
Title 22 §66265.195
(40 CFR §265.195)

Title 22 §66265.195 (Article 10) states that the facility owner must inspect hazardous

	waste tanks daily. The facility did not inspect the 1200-gallon open tank of treated D002 sludge on a daily basis.
Incomplete contingency plan **Title 22 §66265.52(e)** **(40 CFR §265.52(e))**	**Title 22 §66265.52(e) (Article 3) states that the contingency plan shall include a list of all emergency equipment, including each device's location and a brief description.** The facility's contingency plan lacked this information.

POTENTIAL NON-RCRA, CALIFORNIA-ONLY VIOLATIONS

Satellite Accumulation Area Labeling Requirements **Title 22 §66262.34(e)(1)(E)**	**A generator may accumulate as much as 55 gallons of hazardous waste at or near any point of generation if each container used for onsite accumulation is labeled with the words "Hazardous Waste" and with the following information:** **- the initial date of waste accumulation is clearly marked and visible for inspection on each container used for accumulation of hazardous waste;** **- composition and physical state of the waste;** **- the particular hazardous properties of the waste;** **- the name and address of the person producing the waste.** -Four 15-gallon carboys containing spent nickel filters (a non-RCRA, California only hazardous waste) by Line 5 were unlabeled; - 1 bucket of nickel-plated steel wool (a non-RCRA, California only hazardous waste) in the pumping room was unlabeled.

90-Day Storage Area Labeling Requirements

Title 22 §66262.34(f)

Generators who accumulate hazardous waste on site without a permit shall comply with the following requirements:
- the date upon which each period of accumulation begins shall be clearly marked and visible for inspection on each container;
- each container shall be labeled or marked clearly with the words, "Hazardous Waste". Additionally, all containers shall be labeled with:
- composition and physical state of the wastes;
- statement which calls attention to the particular hazardous properties of the waste (e.g., flammable, reactive, etc.);
- name and address of the person producing the waste.

89 55-gallon drums of non-RCRA hazardous waste were unlabeled in the Facility's 90 day storage area.

Storage over 90 days

Title 22 §66262.34(a)

A (large quantity) generator may accumulate hazardous waste on-site for 90 days or less without a permit.

A minimum of 57 55-gallon drums of non-RCRA hazardous waste were stored in the Facility's hazardous waste storage area for over 90 days.

Open Containers

Title 22 §66265.173(a) (Article 9) (40 CFR §265.173(a))

Title 22 §66262.34(a)(1)(A) states that a generator may accumulate hazardous waste on-site without a permit provided that the generator complies with the applicable requirements of articles 9 of chapter 15. Title 22 §66265.173(a) (Article

9) states that a container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste.

- Four 15-gallon carboys containing spent nickel filters (a non-RCRA, California only hazardous waste) by Line 5 were open
- One bucket of nickel-plated steel wool (a non-RCRA, California only hazardous waste) in the pumping room was open.

Attachment 1- Photos

Photo 1: Spent nickel filter cartridges, Line 5

Photo 2: Line 1 open, unlabeled bucket of black liquid

Attachment 1- Photos

Photo 3: Line 1, open, unlabeled 5-gallon bucket partially full of black liquid

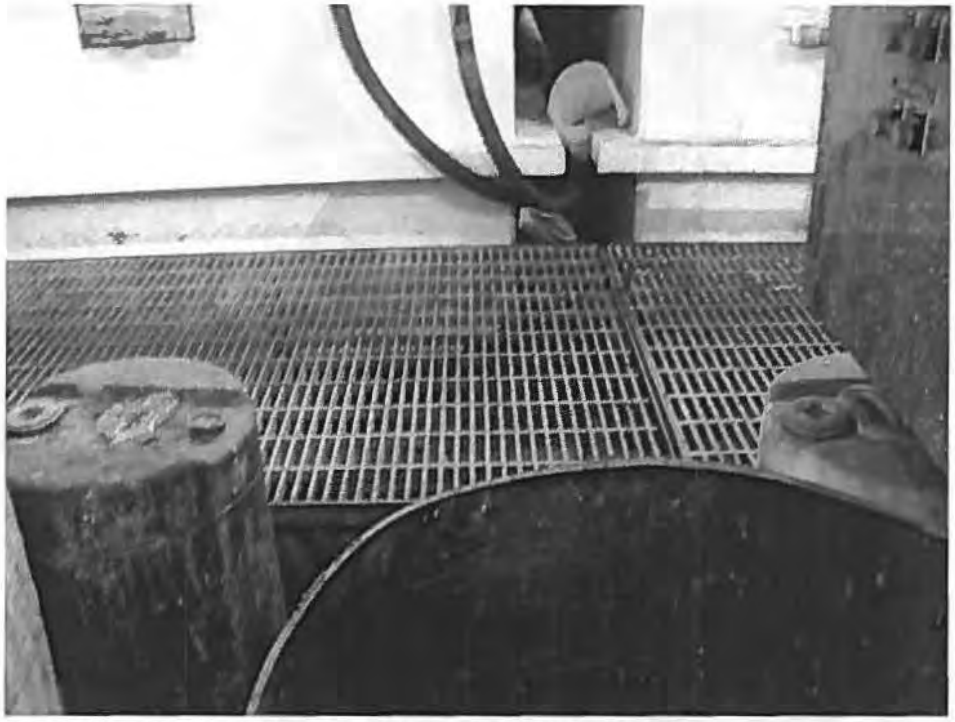
Photo 4: Line 1, open, unlabeled carboy

Attachment 1- Photos

Photo 5: Line 1: Two 30-gallon and one 10-gallon containers, open and unlabeled

Photo 6: Lines 1/3, open, unlabeled 55-gallon drum

Attachment 1- Photos



Pboto 7: Lines 1/3, two unlabeled 15-gallon carboys

Pboto 8: Lines 1/3, open, unlabeled 55-gallon drum

Attachment 1- Photos

Photo 9: Lines 1/3, three open, unlabeled 15-gallon containers

Photo 10: Lines 1/3, four 55-gallon drums, labeled with 3/03 dates

Attachment 1- Photos

Photo 11: Lines 1/3, two unlabeled 15-gallon carboys

Photo 12: Lines 2/4, unlabeled "tubes" filled with milky fluid

Attachment 1- Photos

Photo 13: Lines 2/4, open 5-gallon bucket with "Hazardous Waste" label

Photo 14: Blasting booth with spilled blasting grit on floor

Attachment 1- Photos

Photo 15: Line 3, assorted open, unlabeled containers

Photo 16: Line 3, open, unlabeled 15-gallon container

Attachment 1- Photos

Photo 17: Stripping drum storage area

Photo 18: Stripping area grating (corrosive liquid in area beneath)

Attachment 1- Photos

Photo 19: Hazardous waste storage yard

Photo 20: Hazardous waste storage yard

Attachment 1- Photos

Photo 21: Hazardous waste storage area

Photo 22: Unlabeled supersac of filter cake (F006)

Attachment 1- Photos

Photo 23: 2300-gallon tank of spent cleaner solution

Photo 24: Spent cleaner solution tank label

Attachment 1- Photos

Photo 25: Two 2500-gallon cadmium coagulate rinsewater holding tanks

Photo 26: 1-gallon container with sulfuric acid, labeled "Hazardous"

Attachment 1- Photos

Associated Plating - Counts

1. Failure to make a hazardous waste determination - 262.11

During the inspections, the inspectors noted a 15' x 10' enclosed area where nickel stripping takes place. The area was bermed and covered with a grating. The inspectors noted the bermed area under the grating was filled with a liquid. A pH reading indicated that the liquid tested at "1" and was consequently corrosive. Prior to the inspectors test the pH, the facility representative was unaware that there was a release of corrosive waste in this area.

There were also assorted buckets, carboys and drums along the plating lines that were unlabeled, and which the facility representative was unable to ID during the inspection. A waste determination was made post-inspection, and the following were determined to be RCRA wastes:

- Two unlabeled 15-gallon carboys. This liquid was later identified as "spent sulfuric acid solution used for hourly cleaning of the electro coagulation unit", a D002 hazardous waste
- Three open, unlabeled, blue 5-gallon bucket and one open, unlabeled, white 2-gallon bucket containing an unidentified brown liquid. The buckets contents were later identified as containing alkaline cleaner from tank skimming, a D002 RCRA hazardous waste.

Mitigating circumstances: the nickel stripping enclosure was bermed and had a concrete floor. It was covered by a grating the reduced the possibility of direct content with the corrosive liquid. Outside the bermed area was more concrete. A release to the environment appeared unlikely. There was no indication that when this waste was ultimately disposed of, that it would not be characterized and disposed of as a hazardous waste.

In regards to the buckets and carboys: they were inside the shop, and a release to the environment appeared unlikely.

Bill Alexander case had a 262.11 count, with a minor potential for harm and a moderate extent of deviation. What was involved were 2 boxes of 1-quart cans of off-spec waste paint. Minor potential for harm because the cans were in good condition and the boxes were stored in the waste storage area. Moderate extent of deviation because the facility "had properly identified most of its other waste".

Associated Plating's potential for harm was greater, because (1) the nickel stripping waste was not in a container, and (2) the D002 wastes in the shop were not isolated in the waste storage area, and some of the buckets were open. Therefore, Associated Plating's potential for harm should be in a higher cell.

Heil Co. had a solvent recycler unit, and the facility had disposed of the still bottoms as a non-hazardous waste over a period of years. The 262.11 count was mod/mod. Unlike Associated Plating, Heil Co. had actually disposed of hazardous waste as non-hazardous over a period of years. However, Associated Plating's housekeeping was worse, with the berm filled with

released hazardous waste and the unlabeled carboys and buckets open. It could be argued that the potential for harm in both facilities for this 262.11 count was roughly comparable.

moderate potential for harm/moderate deviation from the regs

1.	Gravity-based Penalty from Matrix (a) Potential for Harm: Moderate (b) Extent of Deviation: Moderate	$7150
2.	Percent increase/decrease for good faith	0
3.	Percent increase for willfulness/negligence	0
4.	Percent increase for history of noncompliance	0
5.	Total lines 2 through 4	0
6.	Multiply line 1 by line 5:	0
7.	Add lines 1 and 6:	$7150
8.	Multiday calculations:	None
9.	Calculate Economic Benefit	0
10.	Add lines 7 and 8:	$7150
11.	Add a 17.23% Inflation Factor to line 9	$1232
12.	Add lines 10 and 11 for penalty amount	$8382

2. Storing hazardous waste without a permit - 270.1

- **Satellite accumulation area labeling violations**
- **90-day storage area labeling violations**
- **Storage over 90 days**

moderate potential for harm/major deviation from the regs/51 days multidays

Moderate potential for harm: mitigating circumstances: the unlabeled and/or time extended hazardous wastes were safely containerized and stored in the bermed waste storage area. However, due to the large quantity of waste stored, and the overall breakdown of the waste storage tracking system, the potential for hazardous was "significant" and merited a "moderate" designation.

Major deviation from the regs: There were 193 unlabeled drums in the waste storage area. 37 drums were later identified as containing RCRA hazardous waste. Of these 37 drums, the facility was not able to provide an accumulation start date for 12 of them, making it impossible to determine how long they had been stored on the premises. There were 6 supersacs of F006 filter cake, one of which was unlabeled. None of the buckets or carboys containing RCRA wastes in the satellite accumulation areas were labeled.

At least 8 of these 37 RCRA-waste containing drums had been stored for over 90 days. The facility was not able to provide accumulation start dates for 12 more of the drums, so there is no was to come up with a final count of drums stored more than 90 days. But using the most conservative estimate, almost a fourth of the drums of hazardous waste stored in the yard had

been stored for over 90 days.

There was one 1200 gallon tank of D002 waste, also unlabeled. The facility was unable to provide an accumulation start date for this as well.

Parker Hannifin case had a moderate potential for harm/major deviation from the regs for a "storage without a permit" count. In this case, the following was observed (out of a total of 10 drums):

- 2 drums had unreadable labels;
- 1 drum lacked an accumulation start date;
- 4 drums were labeled with "hazardous properties" but nothing else;
- 3 drums were unlabeled;
- 3 drums had been stored longer than 90 days.

In the case of Associated Plating, first of all, a lot more containers were involved (37 drums, 1 supersac, numerous buckets and small containers). Labeling violations: almost 100%. Storage over 90 days: at least 8. The situation with Associated Plating was significantly more severe than with Parker Hannifin.

Wesgo case had a moderate potential for harm/major deviation from the regs for a "storage without a permit" couut. In this case, the following was observed:

- 1 drum was stored for 503 days;
- 2 supersacs were positioned so that their labels could not be read.

Although the length of time over 90 days in this case is (apparently) much greater than with Associated Plating, (503 days vs.51 (documented) days), Associated Plating's case involved a considerably larger number of labeling and "over 90 days" violations. The situation with Associated Plating was significantly more severe than with Wesgo.

Based upon the comparison with Parker Hannifin and Wesgo, a moderate/major penalty cell assignment for "storage of hazardous waste without a permit" appears justified for Associated Plating.

1.	Gravity-based Penalty from Matrix (a) Potential for Harm: Moderate (b) Extent of Deviation: Major	$10,450
2.	Percent increase/decrease for good faith	0
3.	Percent increase for willfulness/negligence	0
4.	Percent increase for history of noncompliance	0
5.	Total lines 2 through 4	0
6.	Multiply line 1 by line 5:	0
7.	Add lines 1 and 6:	$10,450
8.	Multiday calculations:	$1430 x 50 = $71,500
9.	Calculate Economic Benefit	0

10. Add lines 7 and 8:	$81,950
11. Add a 17.23% Inflation Factor to line 9	$14,120
12. Add lines 10 and 11 for penalty amount	$96,070

3. Open containers - 265.173(a)

The following hazardous waste containers were open at the time of the inspection:

- 2 open 15-gallon carboys of F008 RCRA hazardous waste between Lines 1 and 3;
- 1 open, 5-gallon red bucket, 1/8 full of F006 hazardous waste between Lines 2 and 4;
- 4 open buckets of alkaline cleaner from tank skimming (D002) by Line 3;

This represented a very small percentage of the total RCRA hazardous waste stored on the facility premises.

Parker Hannifin case had a minor potential for harm/minor deviation from the regs for a "storage without a permit" count. In this case, the following was observed to be open:

–satellite accumulation containers containing hazardous waste solvents under two parts washers;
–"numerous" satellite accumulation containers.

In Parker Hannifin's case, the "open container" circumstances seem at least as serious as with Associated Plating. A "minor/minor" call seems appropriate for Associated Plating.

minor potential for harm/minor deviation from the regs

1. Gravity-based Penalty from Matrix	$220
(a) Potential for Harm: Minor	
(b) Extent of Deviation: Minor	
2. Percent increase/decrease for good faith	0
3. Percent increase for willfulness/negligence	0
4. Percent increase for history of noncompliance	0
5. Total lines 2 through 4	0
6. Multiply line 1 by line 5:	0
7. Add lines 1 and 6:	$220
8. Multiday calculations:	None
9. Calculate Economic Benefit	0
10. Add lines 7 and 8:	$220
11. Add a 17.23% Inflation Factor to line 9	$38
12. Add lines 10 and 11 for penalty amount	$258

4. Waste storage area internal alarm - 265.32(a)

Both **Ivy Hill** and **Jeffco** had similar situations (i.e., no waste storage area internal alarm). In both cases this violation was considered a "minor/minor". This supports a similar "minor/minor" treatment for Associated Plating.

minor potential for harm/minor deviation from the regs

1. Gravity-based Penalty from Matrix	$220
(a) Potential for Harm: Minor	
(b) Extent of Deviation: Minor	
2. Percent increase/decrease for good faith	0
3. Percent increase for willfulness/negligence	0
4. Percent increase for history of noncompliance	0
5. Total lines 2 through 4	0
6. Multiply line 1 by line 5:	0
7. Add lines 1 and 6:	$220
8. Multiday calculations:	None
9. Calculate Economic Benefit	0
10. Add lines 7 and 8:	$220
11. Add a 17.23% Inflation Factor to line 9	$38
12. Add lines 10 and 11 for penalty amount	$258

5. Lack of aisle space - 265.35

Parker Hannifin does not specify the exact number of inaccessible drums but states that a metal rack blocked access to its waste drums and that there was no aisle space between its drums. The violation was considered a moderate potential for harm and a moderate deviation from the regs. This would appear comparable to Associated Plating as well.

moderate potential for harm/moderate deviation from the regs

1. Gravity-based Penalty from Matrix	$7150
(a) Potential for Harm: Moderate	
(b) Extent of Deviation: Moderate	
2. Percent increase/decrease for good faith	0
3. Percent increase for willfulness/negligence	0
4. Percent increase for history of noncompliance	0
5. Total lines 2 through 4	0
6. Multiply line 1 by line 5:	0
7. Add lines 1 and 6:	$7150
8. Multiday calculations:	None
9. Calculate Economic Benefit	0
10. Add lines 7 and 8:	$7150

11. Add a 17.23% Inflation Factor to line 9	$1232
12. Add lines 10 and 11 for penalty amount	$8382

6. Tank violations - 265.191(a); 265.195;

moderate potential for harm/major deviation from the regs

Mitigating circumstances: tank was located in the waste storage area (bermed, concrete padding). No other cases on file with these particular penalty counts.

1. Gravity-based Penalty from Matrix	$10,450
(a) Potential for Harm: Moderate	
(b) Extent of Deviation: Major	
2. Percent increase/decrease for good faith	0
3. Percent increase for willfulness/negligence	0
4. Percent increase for history of noncompliance	0
5. Total lines 2 through 4	0
6. Multiply line 1 by line 5:	0
7. Add lines 1 and 6:	$10,450
8. Multiday calculations:	0
9. Calculate Economic Benefit	0
10. Add lines 7 and 8:	$10,450
11. Add a 17.23% Inflation Factor to line 9	$1800
12. Add lines 10 and 11 for penalty amount	$12,250

7. Incomplete contingency plan - 265.52(e)

The Facility's contingency plan contained all the required information except a list of emergency equipment (along with its location and description)

Los Angeles World Airport (LAWA) was not able to provide a contingency plan during the inspection. A later review of records indicated that certain (but not all) elements of a contingency plan could be located from different records (e.g., LAWA's Business Plan, LAX emergency procedures, etc.). LAWA's "incomplete contingency plan" was considered a moderate potential for harm and a moderate deviation from the regs. In contrast to this, Associated Plating *did* have a contingency plan, and the plan did have most of the required elements.

Parker Hannifin's contingency place lacked the emergency coordinator's address and a description of the capabilities of the facility's emergency equipment. This is roughly similar in degree of severity as Associated Plating. In Parker Hannifin's case, this count was considered a

minor potential for harm and a minor deviation from the regs. This would substantiate the position that Associated Plating's "incomplete contingency plan" should be categorized as a minor/minor violation as well.

minor potential for harm/minor deviation from the regs

1. Gravity-based Penalty from Matrix	$220
(a) Potential for Harm: Minor	
(b) Extent of Deviation: Minor	
2. Percent increase/decrease for good faith	0
3. Percent increase for willfulness/negligence	0
4. Percent increase for history of noncompliance	0
5. Total lines 2 through 4	0
6. Multiply line 1 by line 5:	0
7. Add lines 1 and 6:	$220
8. Multiday calculations:	None
9. Calculate Economic Benefit	0
10. Add lines 7 and 8:	$220
11. Add a 17.23% Inflation Factor to line 9	$38
12. Add lines 10 and 11 for penalty amount	$258

Total: $125,858
less 5% for cooperation: -$6,293
Final Total: $119,565

BACKGROUND

Facility Description

Associated Plating Company ("Associated Plating" or "the Facility") specializes in nickel metal plating, but also performs plating operations with copper, tin, tin-lead alloys, gold and silver. No cadmium or chromium plating is performed by the Facility. The Facility is located at 936 Ann St., Santa Fe Springs, CA, and has occupied its current location since the mid-1970s. The Facility currently employs 52 workers. Per the manifest database of the California Department of Toxic Substance Control (DTSC), the Facility generates sufficient quantities of RCRA hazardous waste to qualify as a Large Quantity Generator.

Plating Process Description

Associated Plating operates four plating lines, as follows:

Line 1: nickel, alkaline tin and acid tin plating;
Line 2: tin, tin-lead, nickel plating (for parts requiring solderability)
Line 3: nickel plating barrel line (for large volumes of small parts (nuts, bolts, etc.). Parts to be plated are placed in a barrel with a mesh screen. The barrel is rotated in the plating solution.
Line 4: Electroless nickel plating (used on aluminum substrates)

Plating operations differ from line to line, but the basic operation is as follows:

Tank 1: Alkaline soak (removes oils and dirt from substrate;
Tank 2: Electro-cleaner. Part is placed in an alkaline solution through which an electric current is run. Tanks vary in size, according to which line, from 70 gallons to 1300 gallons. Solution pH ranges from 12 to 13. Tank is changed every 3 to 6 months. Spent solution is processed through the Facility's wastewater treatment sytem;
Tank 3: Rinse tank.
Tank 4: Acid bath: 30% hydrochloric acid solution. Prepares substrate for the plating process. Bath is changed approximately every 2 months. Spent acid is neutralized on site, metals are precipitated out, and the remaining solution is processed through the wastewater treatment system;
Tank 5: Nickel strike tank (used in nickel plating lines). Provides a more receptive substrate for the subsequent nickel plating. Solution consists of nickel chloride and hydrochloride acid, with an electric current passed through it.
Tank 6: Rinse tank (is this changed? How often? Hazardous waste because of nickel?)
Tank 7: Nickel plating tank (400 gallons): Electroplating operation using nickel sulfamate.

For parts requiring only a nickel plating, the process ends here. For a part that is to be gold-plated (with a nickel substrate) the process continues as follows:

Tank 8: Gold strike. Solution of potassium gold cyanide with an inert anode of titanium mesh with a platinum coating. Solution is used indefinitely

without changing, but with occasional replenishing:

Tank 9: Gold plating tank. Solution of potassium gold cyanide, with an inert cathode. Electric current is passed through the solution and the part acts as a cathode, with the gold deposited on it.

Tank 10: Gold drag out. A static tank. Current passing through the solution deposits trace amounts of gold on a plating cell for gold recovery.

The facility also has a small laboratory that in which the plating solution are analyzed on a weekly basis. Both wet analysis and atomic absorption analysis are performed in the lab. Solutions analyzed are returned to the baths once the analysis has been completed.

INVESTIGATION

The purpose of the investigation was to determine Assoicated Plating's compliance with applicable federal environmental statutes and regulations, and in particular, the Resource Conservation and Recovery Act (RCRA), as amended, the regulations provided in the Code of Federal Regulations (CFR), Chapter 40, Parts 261-265, 268 and 279, and the California Code of Regulations (CCR), Title 22, Division 4.5 and the California Health and Safety Code, Division 20. On November 17, 2003, Clint Seiter and Aubrey Baure, representing the U.S. Environmental Protection Agency (EPA), and accompanied by Richard Kallman, representing the Santa Fe Springs Fire Department, conducted an unannounced site investigation at Atlas Radiator, Santa Fe Springs, CA (EPA ID# CAD029404084). Upon providing introductions and credentials, the inspectors contacted Ms. Diana Crane, the Facility's quality manager. The inspectors explained that this was a routine inspection to determine whether or not the facility was in compliance with federal and state regulations concerning the proper management of RCRA and non-RCRA hazardous wastes. The inspection would consist of a walkthrough of the facility, focusing on those areas where hazardous wastes were handled or stored, with photos taken, followed by a record review and a post-inspection outbriefing. In the course of the pre-walkthrough briefing, the inspectors provided Mr. Cerda with a copy of the Small Business Regulatory Enforcement Fairness Act (SBREFA) Information Sheet.

Walk-Through Inspection

-Plating Line 5

The inspectors noted the following:

- Four open, 15-gallon carboys containing spent nickel filters (a non-RCRA, California only hazardous waste) (Attachment 1, Photo 1). The carboys were unlabeled.

- Plating Line 1

The inspectors noted the following:

- One open, unlabeled, green 5-gallon bucket, 3/4 filled with a black liquid. The facility representative was unable to identify the bucket's contents at the time of the inspection. In the Facility's letter to EPA dated December 22, 2003,
- One open, unlabeled 5-gallon bucket, 1/8 full of unidentified black liquid. In the Facility's letter to EPA dated December 22, 2003, this liquid was identified as "chromate rinse used in processing." **(Get clarification: why was this "chromate rinse" in a bucket? Was it a waste? What was its EPA/California waste code?);**
- One open, unlabeled 15-gallon carboy, 1/4 full with a clear liquid. In the Facility's letter to EPA dated December 22, 2003, this liquid was identified as "chromate rinse used in processing";
- Two open, unlabeled 30-gallon containers of a clear liquid. In the Facility's letter to EPA dated December 22, 2003, this liquid was identified as "chromate rinse used in processing"
- One 10-gallon container with a dark yellow liquid;
- One unlabeled 55-gallon drum. In the Facility's letter to EPA dated December 22, 2003, this liquid was identified as "copper solution removed from tank during pump repair - returned to tank"; 014
- One 55-gallon, closed drum, labeled with the words: "chromium etch, cleaners line 4, tank 4, 6/11/03";
- One 55-gallon, unlabeled, closed drum. In the Facility's letter to EPA dated December 22, 2003, this liquid was identified as "chromate solution that had been decanted from a process tank - reused";

- Building West Wall

The inspectors noted the following:

- One open, unlabeled 55-gallon drum, 1/8 full. In the Facility's letter to EPA dated December 22, 2003, this liquid was identified as "rinse water from chromate processing";
- Two open, unlabeled 15-gallon carboys. In the Facility's letter to EPA dated December 22, 2003, this liquid was identified as "spent sulfuric acid solution used for hourly cleaning of the electro coagulation unit"; **(hazardous waste? Waste code?)**
- One open, unlabeled 55-gallon drum, 3/4 full of a greenish liquid. In the Facility's letter to EPA dated December 22, 2003, this liquid was identified as "in-process sulfuric acid used for hourly cleaning of the electro coagulation unit";
- Three open, unlabeled 15-gallon containers, approximately 1/4 full. In the Facility's letter to EPA dated December 22, 2003, this liquid was identified as "evaporated chromate rinses. Returned to process tank to recover chemistry." **What does this mean?**
- Four, closed 55-gallon drums:
  - 1st drum labeled: "line 3, copper flow, 3-13-03";
  - 2nd drum labeled: "line 3, copper flow, 3-13-03";
  - 3rd drum labeled: "copper rinse, 3-13-03";
  - 4th drum labeled: "copper rinse, 3-13-03";

In the Facility's letter to EPA dated December 22, 2003, drums' contents identified as "water collected from routine berm cleaning"; **(waste analysis done? Hazardous? Waste code?)**

- Two black, 15-gallon carboys, 1 filled with a white solid, one filled with a white solid and 3 inches of liquid. In the Facility's letter to EPA dated December 22, 2003, solids identified as "solids from copper tank maintenance";
- One open, unlabeled, green 5-gallon bucket. The Facility's letter to EPA dated December 22, 2003, stated "solution returned to the process tank (Bright Tin)";

- Between Lines 2 and 4

The inspectors noted the following:

- Two tubes (one yellow, one black), filled with a milky fluid. In the Facility's letter to EPA dated December 22, 2003, this liquid was identified as "in-process solution used for tin stripping";
- One open, 5-gallon red bucket with a "Hazardous Waste" label, 1/8 full of clear liquid with a yellow deposit. In the Facility's letter to EPA dated December 22, 2003, this liquid was identified as "dehydrated rinses from chromate treatment"; **(hazardous waste? Waste code? Accumulation start date?)**

- Blasting Booth (why is this blasting booth used, i.e., what is being blasted off? Paint? What from?

Per the facility representative, a mixture of silicon aluminum oxide and pumice is used as a blasting medium. Spent blasting medium is disposed of with the filter cake generated from the facility's waste water treatment system. The inspectors noted deposits of spent blasting media on the floor around the blasting booth (Attachment 1, Photo ***).

- Electroless nickel pumping room

Per the facility representative, the pipes which convey the electroless nickel plating solution expand due to the heat generated in the facility, and leak solution. There was an open catch basin underneath the pipes to collect any solution that leaks from the pipes. There was also an open, unlabeled bucket containing discarded steel wool plated with nickel (Attachment 1, Photo ***) (with spent electroless nickel plating solution, the nickel is plated out onto steel wool before the solution is processed out through the facility's wastewater treatment system).

- Line 3

The inspectors noted the following:

- One open, unlabeled, blue 5-gallon bucket;

- One open, unlabeled, white 5-gallon bucket containing an unidentified brown liquid;
- One open, unlabeled, white 2-gallon bucket containing an unidentified brown liquid;
- One open, unlabeled, red 5-gallon bucket containing an unidentified black liquid;

The Facility's letter to EPA dated December 22, 2003, stated that these buckets contained "alkaline cleaner from tank skimming" **(hazardous? Waste determination?)**;

- One open, unlabeled, blue, 15-gallon drum, 3/4 filled with black liquid. The Facility's letter to EPA dated December 22, 2003, stated that this drum contained "cleaner sludge from tank maintenance".

- Waste Storage Yard (Stripping Area)

Per the facility representative, occasionally errors occur in the nickel plating process, and the part has to be stripped of the nickel and replated. Spent stripping solution **(acidic? Basic? Chemical composition?)** is stored in this area for neutralization.

The inspectors noted 21 55-gallon drums of spent stripping solution in the stripping area, which, per the facility representative were D002 RCRA hazardous wastes because of their corrosivity. None of the drums were labeled (Attachment 1, Photo ***). The immediate stripping room consisted of a 15'x10' bermed area covered with a grate. The inspectors noted that the area beneath the grating was filled with liquid. A piece of litmus paper was applied to the liquid, and the inspectors determined that the liquid had a pH of approximately 1, which would qualify the liquid as a D002 RCRA corrosive hazardous waste.

-Waste Storage Yard (Main Area)

The main waste storage yard was a large, enclosed exterior area filled with 55-gallon drums, none of them labeled except for a number written on the sides or tops. The facility representative informed the inspectors that numbers identified the drums in a central tracking system data base. Per the representative, many of the drums contained hazardous wastes (either RCRA or non-RCRA, California only), some contained non-hazardous waste, and some contained product. The representative said that the database indicated there were 193 drums in the yard. This conformed to the rough estimate that the inspectors made (a more accurate count was difficult because drums were dispersed in various parts of the yard). In the Facility's letter to EPA dated December 22, 2003, the Facility provided an inventory of the drums, identifying their contents, their waste codes (if applicable) and their accumulation start dates, when possible. The inspectors informed the representative that all drums of RCRA and non-RCRA hazardous wastes had to conform to the regulatory labeling requirements as described in Title 22 of the California Code of Regulations (CCR).

The inspectors also noted the following:

- six unlabeled tote bags that were identified by the facility representative as containing F006 filter cake;
- one 1100-gallon open tank, labeled only "treated sludge". There was a clear liquid in the tank, with approximately 2" of freeboard;
- one unlabeled 2500 gallon tank, filled, according to the facility representative, with "cadmium treatment coagulate". Per the facility representative, this waste was generated in June, 2003, when the cadmium line was shut down. The inspectors informed the representative that a hazardous waste determination needed to be made on this waste, and if it was determined to be hazardous, the facility needed to immediately transport it offsite for proper disposal;
- one unlabeled 2500 gallon tank, on which was written "cation-anion regeneration rinse sludge, 3-9-03". The facility representative informed the inspectors that the tank instead contained alkalide sludge pumped into the bin approximately three weeks prior to the inspection.

The inspector also noted that there was no internal alarm in the waste storage area, as required under CCR Title 22 §66265.34(a).

- Analytical Lab

The inspectors noted a 1-gallon container with a hazardous waste label that was not filled out, except for the words "Sulfuric Acid" (Attachment 1, Photo ***). In the Facility's letter to EPA dated December 22, 2003, the Facility identified this as a product used in lab analysis, not a waste.

The inspectors also noted two open, unlabeled 5-gallon buckets of plating solutions slated for lab analysis.

Record Review

Manifests: the inspectors noted no manifest discrepancies.

Biennial Report, Contingency Plan, Training Records: the facility representative was not able to readily locate these documents. The inspectors requested that, once located, she mail them to the EPA for review.

Post Inspection

On ******, 2003, EPA mailed to the facility a 3007(a) Request For Information letter, requesting the following (Attachment *):

The Facility responded with a letter to EPA dated *****, 2003, which included the information referenced in the report above.

POTENTIAL RCRA VIOLATIONS

Satellite Accumulation Area Labeling Requirements

Title 22 §66262.34(e)(1)(E)
(40 CFR §262.34(c))

A generator may accumulate as much as 55 gallons of hazardous waste at or near any point of generation if each container used for onsite accumulation is labeled with the words "Hazardous Waste" and with the following information:

(A) the initial date of waste accumulation is clearly marked and visible for inspection on each container used for accumulation of hazardous waste;

(B) composition and physical state of the waste;

(C) the particular hazardous properties of the waste;

(D) the name and address of the person producing the waste.

The following satellite accumulation area hazardous waste containers did not have this

labeling information:

- eight 3-gallon buckets and two 35-gallon drums in the facility Repair Shop, all containing solder dross (D008);
- one 4'x3'x3' bin for filter cake (D008).

Waste Storage Area Labeling Requirements

Title 22 §66262.34(*******)
(40 CFR §262.34(c))

A (small quantity) generator may accumulate hazardous waste for 180 days or less without a permit provided that each container used for onsite accumulation is labeled with the words "Hazardous Waste" and with the following information:
(A) the initial date of waste accumulation is clearly marked and visible for inspection on each container used for accumulation of hazardous waste;
(B) composition and physical state of the waste;
(C) the particular hazardous properties of the waste;
(D) the name and address of the person producing the waste.

The supersac of D008 filter cake did not have this labeling information (this was corrected during the inspection).

Open Containers

Title 22 §66265.173(a) (Article 9)
(40 CFR §265.173(a))

Title 22 §66262.34(a)(1)(A) states that a generator may accumulate hazardous waste on-site without a permit provided that the generator complies with the applicable requirements of articles 9 of chapter 15. Title 22 §66265.173(a) (Article 9) states that a container holding hazardous waste must always be closed

during storage, except when it is necessary to add or remove waste.

The following hazardous waste containers were open at the time of the inspection:

- ten 3-gallon buckets and two 35-gallon drums in the facility Repair Shop, all containing solder dross (D008);
- one 4'x3'x3' bin for filter cake (D008).

Waste Storage Area Internal Alarm

Title 22 §66265.34(*)
(40 CFR §265.34(a))

Title 22 §66262.34(*)(*) states that a generator may accumulate hazardous waste on-site without a permit provided that the generator complies with the applicable requirements of section ** Title 22 §66265.34(a) states whenever hazardous waste is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation must have immediate access to an internal alarm or emergency communication device.**

There was no such alarm or communication device mounted in the facility's waste storage area.

Training requirements

Title 22 §66265.34(*)
(40 CFR §265.34(a))

Title 22 §66262.34(*)(*) states that a (small quantity) generator may accumulate hazardous waste on-site without a permit provided that the generator is thoroughly familiar with proper waste handling and emergency procedures.

The facility representative did not display sufficient familiarity with proper waste handling and emergency procedures.

Manifests

Title 22 §66262.40(a)
(40 CFR §262.40(a))

A generator must keep a copy of each manifest signed for three years from the date the waste was accepted by the initial transporter.

The facility did not have onsite copies of manifests for hazardous wastes transported offsite.

POTENTIAL NON-RCRA, CALIFORNIA-ONLY VIOLATIONS

Satellite Accumulation Area Labeling Requirements

Title 22 §66262.34(e)(1)(E)

A generator may accumulate as much as 55 gallons of hazardous waste at or near any point of generation if each container used for onsite accumulation is labeled with the words "Hazardous Waste" and with the following information:
(A) the initial date of waste accumulation is clearly marked and visible for inspection on each container used for accumulation of hazardous waste;
(B) composition and physical state of the waste;
(C) the particular hazardous properties of the waste;
(D) the name and address of the person producing the waste.

The used oil and spent anti-freeze containers were unlabeled.

Open Containers

Title 22 §66265.173(a) (Article 9)

Attachment 1 - Photos

Title 22 §66262.34(a)(1)(A) states that a generator may accumulate hazardous waste on-site without a permit provided that the generator complies with the applicable requirements of articles 9 of chapter 15. Title 22 §66265.173(a) (Article 9) states that a container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste.

The used oil and spent anti-freeze containers were open.

Daily Inspections

Month/Year: NOV. 2003 Location: Water Dept.

Hazardous Waste Area and Items to be Inspected	Date 10		Date 11		Date 12		Date 13		Date 14	
	S	US	S	US	S	US	S	US	S	US
Container condition (Leaks, corrosion)	✓		✓		✓		✓		✓	
Wastes in proper types of containers	✓		✓		✓		✓		✓	
Container lids, caps, etc. secure	✓		✓		✓		✓		✓	
Waste labels on all containers	✓		✓		✓		✓		✓	
Waste labels on all containers readable	✓		✓		✓		✓		✓	
Waste storage less than 90 days	✓		✓		✓		✓		✓	
Incompatible wastes properly segregated	✓		✓		✓		✓		✓	
Ignitables 50 ft. from property line	✓		✓		✓		✓		✓	
Area secure from entry or vandalism	✓		✓		✓		✓		✓	
Any other hazardous waste areas/items needing attention	None		None		None		None		None	
Amount of rainfall within last 24 hours	0.0		0.0		0.0				0.0	
Inspector's Name Inspector's Title	Kim H.		Kim H.		Kim H.		Kim H		Kim H.	

S = Satisfactory
US = Unsatisfactory

For each unsatisfactory item, describe the nature of the problem and th date and nature its corrective action on the back of this sheet. Use additional sheets if necessary.

ALL UNSATISFACTORY ITEMS MUST BE REPORTED TO THE QUALITY CONTROL MANAGER OR MAINTENANCE DEPARTMENT.

HWINSP

Daily Inspections

Month/Year: NOV. 2003 Location: Water

Hazardous Waste Area and Items to be Inspected	Date 3		Date 4		Date 5		Date 6		Date 7	
	S	US	S	US	S	US	S	US	S	US
Container condition (Leaks, corrosion)		✓	✓		✓		✓		✓	
Wastes in proper types of containers		✓	✓		✓		✓		✓	
Container lids, caps, etc. secure		✓	✓		✓		✓		✓	
Waste labels on all containers		✓	✓		✓		✓		✓	
Waste labels on all containers readable		✓	✓		✓		✓		✓	
Waste storage less than 90 days		✓	✓		✓		✓		✓	
Incompatible wastes properly segregated		✓	✓		✓		✓		✓	
Ignitables 50 ft. from property line		✓	✓		✓		✓		✓	
Area secure from entry or vandalism		✓	✓		✓		✓		✓	
Any other hazardous waste areas/items needing attention →	Above OK. None		None		None		None		None	
Amount of rainfall within last 24 hours	0.2		0.0		0.0		0.0		0.0	
Inspector's Name Inspector's Title	Ken H.		Ken H.		Ken H.		Ken H.		Ken H.	

S = Satisfactory
US = Unsatisfactory

For each unsatisfactory item, describe the nature of the problem and th date and nature its corrective action on the back of this sheet. Use additional sheets if necessary.

ALL UNSATISFACTORY ITEMS MUST BE REPORTED TO THE QUALITY CONTROL MANAGER OR MAINTENANCE DEPARTMENT.

HWINSP.

Certified Mail No.
Return Receipt Requested

In Reply Refer to: Associated Plating Co.
CAD043079110

Ms. Diana Crane
Quality Manager
Associated Plating Co.
9636 Ann St.
Santa Fe Springs, CA 90670

Re: Request for Information Pursuant to 3007(a) of the Resource Conservation and Recovery Act

Dear Ms. Crane:

The purpose of this letter is to direct you or another duly authorized representative of the facility to respond in writing to this request for additional information concerning the hazardous waste inspection conducted at your facility by EPA and the Santa Fe Springs Fire Department inspectors on November 17, 2003.

Under the provisions of Section 3007(a) of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. 6927(a), the United States Environmental Protection Agency ("EPA") may require persons subject to RCRA to furnish information necessary for EPA to administer the Act. Pursuant to EPA's authority set forth in Section 3007(a), you are requested to submit the following information:

1. **In the print-outs you provided the inspectors, 186 containers of waste were identified. Please provide the following information regarding these containers:**
   - **the waste codes (RCRA and/or non-RCRA, California only) for the contents of each container;**
   - **the accumulation start date (i.e., when the container was first filled with the waste) with any available documentation, for each container.**

2. **Please provide EPA copies of all hazardous waste manifests for the years 2001, 2002 and 2003;**

3. **Please provide EPA with copies of training records as described in Title 22 of the California Code of Regulations §66265.16(d)(1)-(4), that is:**
   - **the job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job;**

- **a written job description for each position listed;**
- **a written description of the type and amount of both introductory and continuing training that will be given to each person listed above;**
- **records that document that the training or job experience required have been completed.**

4. **Please conduct a hazardous waste determination, as required under Title 22 of the California Code of Regulations §66262.11, and provide EPA with the results (including waste code and accumulation start date (if hazardous)) for the following wastes:**
   - **Spent filters from the nickel baths;**

   - **Oily liquid in open, 5-gallon green bucket and open, 5-gallon black bucket, by Line 1;**

   - **Oily liquid in open, 5-gallon blue bucket, with label "electroless Ni solution", by Line 1;**

- **Yellow liquid in 2 30-gallon white open container and 1 10-gallon, white open container, by Line 1;**

- **Contents of unlabeled, black 55-gallon drum, by Line 1;**

- **Contents of unlabeled, white 55-gallon drum, by Line 1;**

– **Nickel filters in box, by Line 1;**

– **Contents of open, black 55-gallon drum, by Line 1;**

– **Contents of two unlabeled carboys, by Line 1;**

- **Contents of open, 55-gallon drum between Lines 1 and 3;**

- **Contents of 3 open, black containers between Lines 1 and 3;**

- **Contents of 4 55-gallon plastic drums, dated "3/03" and labeled "copper floor", between Lines 1 and 3;**

- **Contents of 2 open black 15-gallon containers and 1 open 5-gallon white bucket between Lines 1 and 3;**

- **Contents of open 5-gallon green bucket between Lines 1 and 3;**

- **Contents of 2 (1 open, 1 closed) white 5-gallon buckets, 1 black cylinder, 1 open blue 5-gallon bucket by Line 2;**

– **Contents of two open, unlabeled 5-gallon buckets (1 white, 1 red) by Line 2;**

– **Spent blasting media from sand blaster;**

– **Contents of open, 5-gallon white bucket in Maintenance Supplies Room;**

- **Contents of 2 white open 5-gallon buckets, 1 open 7-gallon red bucket, and one blue container by Line 3, north side;**

- **Contents of open blue container, north side of building;**

- **Contents of all 21 55-gallon drums in the outside stripping area;**

- **Contents of white, open, polyurethane domed tank in waste storage yard (along with documentation of accumulation start date);**

- **Contents of 4 unmarked 55-gallon drums behind the polyurethane tank;**

- **Contents of one blue, open drum in front of decommissioned cadmium holding tanks;**

– **Contents of two holding tanks in outdoor storage area;**

– **Contents of 12 unlabeled 55-gallon drums along south wall by facility's wastewater treatment plant;**

– **Contents of laboratory waste containers;**

Section 3008 of RCRA, 42 U.S.C. 6928, authorizes the initiation of a civil enforcement proceeding for failure to respond fully to the information request set out in this letter. Section 3008 also authorizes criminal prosecution for knowingly making a false statement or omitting material information.

EPA regulations governing confidentiality of business information are set forth in 40 C.F.R. Part 2, Subpart B. For any portion of the information submitted which is entitled to confidential treatment, please assert a confidentiality claim in accordance with 40 C.F.R. 2.203(b). If EPA determines that the information so designated meets the criteria set forth in 40 C.F.R. 2.208, the information will be disclosed only to the extent, and by means of the procedures specified in 40 C.F.R. Part 2, Subpart B. EPA will construe the failure to furnish a confidentiality claim with your response with this letter as a waiver of that claim, and information may be made available to the public by EPA without further notice.

This request for information is not subject to review by the Office of Management and Budget ("OMB") under the Paperwork Reduction Act because it is not an "information collection request" within the meaning of 44 U.S.C. §§3502(3), 3507, 3512, and 3518(c)(1). See, also, 5 C.F.R. §§ 1320.3(c), 1320.4, and1320.6(a). Furthermore, it is exempt from OMB review under the Paperwork Reduction Act because it is directed to fewer than ten persons. 44 U.S.C. §3502(4), (11); 5 C.F.R. §§ 1320.4 and 1320.6(a).

Your response to this request must be made by letter, signed by a duly authorized official, and submitted to EPA within **twenty-one (21)** calendar days from the date of receipt of this letter. Please address the submittal to:

Clint Seiter
Mailcode: WST-3
RCRA Enforcement Section
U.S. Environmental Protection Agency,
75 Hawthorne Street
San Francisco, CA 94105

If you have any questions regarding this matter, please contact Clint Seiter at (415)972-3298. Your cooperation in this matter is appreciated.

Sincerely,
Frances Schultz, Manager
RCRA Enforcement Office

cc: Steve Lavinger, DTSC
Richard Kallman, Santa Fe Springs Fire Department

MAIL CODE	WST-3					
SURNAME	SEITER					
DATE	12-2-03					

U.S. EPA CONCURRENCES OFFICIAL FILE COPY

Associated Plating Company – Photo Log
* underlined containers indicate a hazardous waste determination has been requested
Refer to facility map

P1, P2, P3	Line 5 – 4 plastic buckets containing nickel filters with no labels
P4, P5	Line 1 south – 1 green bucket and 1 black bucket, open and without labels
P6 008	Line 1 south – 1 blue container with label "electroless Ni solution"
P7 009	Line 1 south – 1 black drum – possibly D002, eventually goes to wastewater treatment plant
P8 010	Line 1 by Fusing Room – 1 white drum – possibly spent oil from hot oil baths
P9 011	Line 1 by Fusing Room – 3 white containers said to contain chromate and will be re-used
P10	Line 1 south – 1 black drum
P11 013	Behind Lines 1 and 3 – paper box of used nickel filters
P12 014	Aisle between Lines 1 and 3 – 1 black drum said to contain rainwater
P13 015	Aisle between Lines 1 and 3 – 2 closed plastic containers
P14	Aisle between Lines 1 and 3 – open plastic container said to be treated at cyanide destruction area
P15 017	Aisle between Lines 1 and 3 – 3 open black containers
P16, P17 018	Aisle between Lines 1 and 3 – 4 plastic drums dated "3/03" and labeled "copper floor"
P18, P19 020	Aisle between Lines 1 and 3 on ramp – behind the 4 plastic drums, are 2 black containers and 1 white bucket with no labels
P20 022	Aisle between Lines 1 and 3 on ramp – behind the 4 plastic drums is 1 green bucket
P21 023	Line 2 – 2 white buckets (1 open, 1 close), 1 graduated cylinder, and 1 blue bucket with no labels
024-026 P22, P23, P24	Line 2 west along aisle space – 2 plastic buckets (1 red, 1 white) with no labels
P25 027	Maintenance Supplies Room – sandblasting area; spent grit goes with filter cake waste
P26 029	Maintenance Supplies Room, Pump Area – 1 white bucket
P27 030	Line 3 north – 2 white containers open, 1 red bucket open, 1 blue container open, 2 blue containers (1 closed, 1 open)
P28 031	Line 3 north – 1 blue container open

P29, P30 0032-34	Stripping Area – 21 drums with no labels, possibly D002; 18 in front of stripping area and 3 drums within cyanide destruct area
P31 0035	Stripping Area – area full of open nickel stripping solutions; berm nearly overflowing; pH paper test indicates water inside berm is pH 1
P32-P36	Outdoor Storage Area – appro. 53 waste drums; waste drums mixed in with product drums
P37 0041	Outdoor Storage Area – 1 supersac without any labels
P38, P39	Outdoor Storage Area, north-west of stripping area along property fence – appro. 56 drums
P40	Outdoor Storage Area, directly west of stripping area along property fence – appro. 34 drums
P41	Close-up of drums in P40
P42	Outdoor Storage Area, along north boundary – inadequate aisle space; supersacs labeled "non-RCRA nickel filters"
P43, P44	Outdoor Storage Area, south-west of stripping area, close of hazardous materials storage area – 9 drums labeled with accumulation start dates of "2003"; 5 drums without HW labels
P45 0049	Outdoor Storage Area – 1 open poly tank with HW label and marked "treated sludge" with start date as "11/12/03"
P46 0051	Outdoor Storage Area, behind poly tank in P45 – 4 drums unmarked, 2 marked "cyanide filters", of which 1 is marked "6/5/03", and the other without a date
P47 0052	Outdoor Storage Area – "cyanide filter" drum with "6/5/03" date
P48, P49 0054	Outdoor Storage Area – in front of decommissioned Cadmium holding tanks – 1 blue open drum
P50 0055	Outdoor Storage Area – 2 cadmium holding tanks
P51	Wastewater Treatment Plant , south side – 4 drums labeled "nickel stripper" with dates "11/3/03", "11/14/03 – (2 drums)", "11/5/03"
P52-P54	Wastewater Treatment Plant, south side – 12 drums variously labeled gold striper, cadmium striper, fuse oil, nickel striper, acid, tin-Pb Line 3
P55	Lab – 1-quart white container
P56	Lab – 2 10-gal white buckets with open funnels used to test titration samples; one labeled "acid waste" with accumulation start date "2002"

Hazardous Materials Business Plan - List of Chemicals

Permit No 60-0089 **Facility:** ASSOCIATED PLATING CO.

Address: 9636 ANN, SANTA FE SPRINGS

Chemical	Maximum Daily Amt	Units	Physical State	Largest Container	Grid No
60/40 TIN-LEAD (DULL)	140	GAL	Liquid	140	
90/10 TIN- LEAD(BRIGHT)	85	GAL	Liquid	85	
90/10 TIN-LEAD (BRIGHT)	184	GAL	Liquid	184	
ACID COPPER	220	GAL	Liquid	55	
ACTIVATOR (PUMA C-12)	60	GAL	Liquid	60	
ALKALINE COPPER	184	GAL	Liquid	184	
ALKALINE TIN (TANK 14)	184	GAL	Liquid	184	
ALKALINE TIN (TANK 14)	1326	GAL		1326	
ALKALINE TIN (TANK 28)	150	GAL	Liquid	150	
ALKALINE TIN (TANK 30)	271	GAL	Liquid	271	
ALUMINUM ETCH(3% ALKALUME ETCHANT E	95	GAL	Liquid	95	
BRIGHT ACID TIN	71	GAL	Liquid	71	
BRIGHT ACID TIN	748	GAL	Liquid	748	
BRIGHT NICKEL	182	GAL	Liquid	182	
CADMIUM PLATE (TANK 11A)	625	GAL	Liquid	625	
CADMIUM PLATE (TANK 11B)	625	GAL	Liquid	625	
CALCIUM CHLORIDE	225	GAL	Liquid	55	7-F
COPPER CYANIDE PLATE	250	GAL	Liquid	250	
COPPER PLATE	105	GAL	Liquid	105	
CYANIDE COPPER PLATE	1326	GAL	Liquid	1326	
CYANIDE COPPER PLATE	140	GAL		140	
ELECTROCLEANER METALEX W (6%)	275	GAL	Liquid	275	
ELECTROCLEANER ((7.5%ELECTROKLEEN SC)	184	GAL	Liquid	184	
ELECTROCLEANER 79	195	GAL	Liquid	195	
ELECTROCLEANER 79		GAL	Liquid	60	
ELECTROCLEANER 79	60	GAL	Liquid	60	
ELECTROCLEANER 79	195	GAL	Liquid	195	
ELECTROCLEANER 79	1020	GAL	Liquid	1020	
ELECTROCLEANER 79	1020	GAL	Liquid	1020	
ELECTROLESS NICKEL	200	GAL	Liquid	200	
ELECTROLESS NICKEL	200	GAL	Liquid	200	
ELECTROLESS NICKEL FIDELITY 4885-B	110	GAL	Liquid	55	
ELECTROLESS NICKEL (HIGH PHOS)	100	GAL	Liquid	100	
ETCH (Q-PEX 6%)	275	GAL	Liquid	275	
FLUOBORIC ACID	55	GAL	Liquid	55	
GOLD PLATE (HARD)	72	GAL	Liquid	72	
GOLD PLATE(SOFT)	56	GAL	Liquid	56	
GOLD STRIKE	57	GAL	Liquid	57	
HYDROCHLORIC ACID	440	GAL	Liquid	55	7-E

Chemical	Maximum Daily Amt	Units	Physical State	Largest Container	Grid No
HYDROCHLORIC ACID DIP	275	GAL	Liquid	275	
IRIDITE 80	55	GAL	Liquid	55	
IRIDITE 80 (3%)	325	GAL	Liquid	325	
KLEER AID 5-A	600	GAL	Liquid	55	7-F
METAL HYDROXIDE	250	LBS	Solid	2000	
MURIATIC ACID	85	GAL	Liquid	85	
MURIATIC ACID	71	GAL	Liquid	71	
MURIATIC ACID (50 %)	663	GAL	Liquid	663	
MURIATIC ACID (50%)	663	GAL	Liquid	663	
NICKEL STRIKE	349	GAL	Liquid	230	
NICKEL STRIKE	119	GAL	Liquid	119	
NICKEL STRIPPER	60	GAL	Solid	60	
NICKEL SULFAMATE PLATE	102	GAL	Liquid	55	
NICKEL SULFAMATE PLATE	680	GAL	Liquid	680	
NICKEL SULFAMATE PLATE	680	GAL	Liquid	680	
NICKEL SULFAMATE PLATE	680	GAL	Liquid	680	
NICKEL SULFAMATE PLATE	680	GAL	Liquid	680	
NICKEL SULFAMATE PLATE	680	GAL	Liquid	680	
NICKEL SULFAMATE PLATE	110	GAL	Liquid	110	
NICKEL SULFAMATE PLATE	110	GAL	Liquid	110	
NICKEL SULFAMATE PLATE	230	GAL	Liquid	230	
NICKEL SULFAMATE PLATE	102	GAL	Liquid	102	
NICKEL SULFAMATE STRIKE	500	GAL	Liquid	55	
NITRIC ACID	330	GAL	Liquid	55	7-E
NITRIC STRIPPER	274	GAL	Liquid	274.	
PHOSPHORIC ACID	110	GAL	Liquid	55	
POLY ALUMINUM SOAK CLEANER(20%)	195	GAL	Liquid	195	
POLY BIO-KLEEN	110	GAL	Liquid	55	7-F
POLY ELECTROKLEEN SC	500	LBS	Solid	55	
PROPANE	17714	CU FT	Liquid	17714	4-F
SILVER PLATE	160	GAL	Liquid	160	
SILVER PLATE	70	GAL	Liquid	70	
SILVER PLATE	70	GAL	Liquid	70	
SILVER STRIKE	62	GAL	Liquid	62	
SILVER STRIKE	142	GAL	Liquid	142	
SOAK CLEANER	1326	GAL	Liquid	1326	
SOAK CLEANER (ALKALOX 89)	132	GAL	Liquid	132	
SOAK CLEANER -- METALEX W	550	GAL	Liquid	550	
SODIUM CARBONATE	200	LBS	Solid	55	
SODIUM HYDROXIDE(LIQUID)	220	GAL	Liquid	55	7-F
SODIUM HYPOCHLORITE	220	GAL	Liquid	55	7F
SULFAMATE NICKEL	680	GAL	Liquid	680	
SULFURIC ACID	330	GAL	Liquid	55	

Chemical	Maximum Daily Amt	Units	Physical State	Largest Container	Grid No
SULFURIC ACID	71	GAL	Liquid	71	
ZINCATE (BONDAL)	80	GAL	Liquid	80	

Detailed Facility Report

Report Error | Data Dictionary

For Public Release - Unrestricted Dissemination Report Generated on 11/12/2003
US Environmental Protection Agency - Office of Enforcement and Compliance Assurance

Facility Permits and Identifiers

Data Dictionary

Statute	System	Source ID	Facility Name	Street Address	City	State	Zip
	FRS	110000475771	ASSOCIATED PLATING COMPANY	9636 ANN STREET	SANTA FE SPRINGS	CA	90670
RCRA	RCR	CAD043079110	ASSOCIATED PLATING COMPANY, INCORPORATED	9636 ANN STREET	SANTA FE SPRINGS	CA	90670
EP313	TRI	90670SSCTD9636A	ASSOCIATED PLATING CO. INC.	9636 ANN ST	SANTA FE SPRINGS	CA	90670

Facility Characteristics

Data Dictionary

Statute	Source ID	Facility Status	Permit Expiration Date	Lat/Long	Indian Lands?	SIC Codes	NAICS Codes
	110000475771			LRT lat: 33.9536 LRT long:-118.0580	NA		
RCRA	CAD043079110	LQG			No	3471 3471	332813
EP313	90670SSCTD9636A			lat: 33.9525 long: -118.0586	NA	3471	

If the CWA permit is past its expiration date, this normally means that the permitting authority has not yet issued a new permit. In these situations, the expired permit is normally administratively extended and kept in effect until the new permit is issued.

Inspection and Enforcement Summary Data

Data Dictionary

Statute	Source ID	RECAP Insp. Last 05Yrs	Date of Last Inspection	Formal Enf Act Last 05 Yrs	Penalties Last 05 Yrs
RCRA	CAD043079110	0	11/05/1992	0	$00

Inspection History (05 years)

Data Dictionary

Statute	Source ID	Inspection Type	Lead Agency	Date
- No data records returned.				

Entries in *italics* are not considered inspections in Reporting for Enforcement and Compliance Assurance Priorities (RECAP) official counts.

Compliance Summary Data

Data Dictionary

Statute	Source ID	Current SNC/HPV?	Current As Of	Description	Qtrs in NC (of 8)
RCRA	CAD043079110	NO	10/19/2003		0

Two Year Compliance Status by Quarter

Data Dictionary

Violations shown in a given quarter do not necessarily span the entire 3 months.

Statute:Source ID	QTR1	QTR2	QTR3	QTR4	QTR5	QTR6	QTR7	QTR8
- No data records returned.								

Informal Enforcement/Notices of Violation - AFS, PCS, RCRAInfo (05 year history)

Data Dictionary

Statute	Source ID	Type of Action	Lead Agency	Date
- No data records returned.				

Formal Enforcement Actions - AFS, PCS, RCRAInfo, NCDB (05 year history)

Data Dictionary

Statute	Source ID	Type of Action	Lead Agency	Date	Penalty	Penalty Description
EP313	D09#EPCRA09-00-0040	Civil Admin Complaint	EPA	09/26/2000	$1,000	

In some cases, formal enforcement actions may be entered both at the initiation and final stages of the action. These may appear more than once above. Entries in *italics* are not "formal" actions under the PCS definitions but are either the initiation of an action or penalties assessed as a result of a previous action. This section includes US EPA and State formal enforcement actions under CAA, CWA and RCRA.

EPA Formal Enforcement Actions - ICIS (05 year history)

Data Dictionary

Primary Law/Section	Case Number	Case Type	Case Name	Issued/Filed Date	Settlement Date	Penalty	SEP Cost
EPCRA / §313	09-2000-0233	Administrative - Formal	ASSOCIATED PLATING	09/26/2000	09/26/2000	$1,000	

Federal enforcement actions and penalties shown in this section are from the Integrated Compliance Information System (ICIS). These actions may duplicate records in the Formal Enforcement Actions section.

History of Reported Chemicals Released in Pounds per Year at Site:90670SSCTD9636A

Data Dictionary

Chemical releases reported to TRI are provided for context and are not associated with non-compliance for that facility.

Year /	Total Air Emissions	Surface Water Discharges	Underground Injections	Releases to Land	Total On-site Releases	Total Off-site Transfers	Total Releases and Transfers
1993	1,010				1,010	17,394	18,404
1994	1,250				1,250	13,944	15,194
1995	250				250	20,718	20,968
1996	1,005				1,005	19,450	20,455
1997	1,005				1,005	20,450	21,455
1998	1,005				1,005	750	1,755
1999	500				500	8,037	8,537
2000							
2001	309				309	48,780	49,089

TRI Total Releases and Transfers by Chemical and Year

Chemical releases and transfers are in pounds except where otherwise noted

Chemical Name	1993	1994	1995	1996	1997	1998	1999	2000	2001	
NITRATE COMPOUNDS			20,718	18,700	19,700				38,380	
TETRACHLOROETHYLENE	17,894	14,444		1,250	1,250	1,250	8,537			
HYDROCHLORIC ACID (1	250	250		250	250	250				
PHOSPHORIC ACID	5			5	5	5				
SULFURIC ACID (1994	5	250								
NITRIC ACID	250	250	250	250	250	250			10,709	

Demographic Profile of Surrounding Area (3 Miles) Switch to 1 Mi 5 Mi

Data Dictionary

This section is to provide context regarding the community setting of the facility. No relationship between this information, and other data included in this report is implied. Statistics are based upon the 2000 US Census data, and are accurate to the extent that the facility latitude and longitude listed below are correct. The latitude and longitude are obtained from the EPA Locational Reference Table(LRT) when available. N/A = Not yet available from the Census Bureau for 2000 Census

Radius of Area:	3 Miles	Land Area:	99.03%	Households in area:	N/A
Center Latitude:	33.9536	Water Area:	0.97%	Housing units in area:	62,917
Center Longitude:	118.0580	Population Density:	7166.31/sq. mi.	Households On Public Assistance:	N/A
Total Persons:	215,801	Percent Minority:	78.06%	Persons Below Poverty Level:	N/A

Race Breakdown	Persons (%)	Age Breakdown:	Persons (%)
White:	113,108 (52.41%)	Child 5 years and less:	17,995 (8.34%)
African-american:	4,150 (1.92%)	Minors 17 years and younger:	66,934 (31.02%)
Hispanic-Origin:	152,771 (70.79%)	Adults 18 years and older:	148,206 (68.68%)
Asian/Pacific Islander:	8,839 (4.10%)	Seniors 65 years and older:	12,713 (5.89%)
American Indian:	2,819 (1.31%)		
Other race:	86,885 (40.26%)		

Education Level (Persons 25 & older)	Persons (%)	Income Breakdown:	Households (%)
Less than 9th grade:	N/A	Less than $15,000:	N/A
9th-12th grades:	N/A	$15,000-$25,000:	N/A
High School Diploma:	N/A	$25,000-$50,000:	N/A
Some College/2-yr:	N/A	$50,000-$75,000:	N/A
B.S./B.A. or more:	N/A	Greater than $75,000:	N/A

Please note: Entries in gray denote records that are not federally required to be reported to EPA. These data may not be reliable.

Map Returned Facility

This report was generated by the Integrated Data for Enforcement Analysis (IDEA) system, which updates its information from program databases

monthly. The data were last updated: RCRAInfo: 10/19/2003. NCDB: 10/15/2003. FRS: 10/16/2003. TRI: 10/08/2003. ICIS: 10/16/2003.

Some regulated facilities have expressed an interest in explaining data shown in the Detailed Facility Reports in ECHO. Please check company web sites for such explanations.

SPECIFIC PLATING CO., INC

Associated plating co.

9636 ANN ST. • SANTA FE SPRINGS, CA 90670

DIANA F. CRANE
QUALITY MANAGER

562) 946-5525 FAX: (562) 941-5922 (714) 522-8420
-mail: d.crane@associatedplating.com web: www.associatedplating.com

City of Santa Fe Springs

Richard Kallman, PE, REA
Environmental Protection Specialist

adquarters Fire Station
00 Greenstone Avenue
ta Fe Springs, CA 90670-4619
v.santafesprings.org

Direct: (562) 906-3810
Office: (562) 944-9713
Fax: (562) 941-1817
richardkallman@santafesprings.org

Nov. 17 Associated Plating

Tim Brandelas - Plant Manager
~~Cindy~~ Mike Evans - ~~Plant~~ President
Diana Crane - Quality Mgr.

Metal plate on aluminum, stainless steel, copper, magnesium, composite materials & plastic

Plate copper, nickel, electroless nickel, tin, tin-lead alloys, gold, silver

Hexavalent chrome

Mostly nickel plating

Alkaline soak cleaner. Remove oil. Change tank every 3-6 months. pH 12-13. Pumped into treatment area. Stored in tanks sometimes. 500-1000 gal tanks ~ 4 tanks. Part of WWTU.
1300 gal for Alkaline Soak Tank

4 plating lines.

Electro-cleaning Alkaline solution. Clean part using current. 1300 gal (for nickel)
70 gal → for smallest line
12-13 pH. Changed 3-6 mo.

Rinse tank - 660 gal.
Deionization system → circulate through. When one DI system in circulation, other in stages.
Sulfuric acid + caustic soda used ~~No waste generated~~
Regenerating DI columns, flushing of DI resin beds
Resin changed to 5-7 yrs

DI columns take off nickel nickel sulfate
All rinse tanks go thru this system except tin rinse, go through clarifier instead (not regulated)

Caustic soda, strip off (sulfates, chlorides, nitrate

Anodic side → copper, nickel, lead.
Metals stripped out of solution.

Metering on columns when resin has been consumed.

Regeneration → stripping off columns.

Upshot → water in rinse tanks

Acid tank (hydrochloric at 30%).
Largest tank = 660 gal.
Changed every 2 months.
Spent acid → neutralized on site. pH of 9 (brought to), metals precipitated out

Nickel strike → = Nickel chloride + hydrochloric acid.
To have substrate have good adherence. Electric current.
Nickel plates more easily on nickel substrate.
660 gal. Strike = underplate
Strikes get contaminated w. copper, pull out copper (from brass)
Strike cleaned w/o changing.

Rinse tank

Nickel anodes, nickel sulfamate
Nickel plating → 400 gal

Cap stops there. Sometimes plating on top (gold) (tin?) (silver)

52 people employed
18000 sq ft. Mid 70's

Filter cake
Strip solutions → if plating doesn't go right, nickel stripped off. Nickel strip solution. Nickel stripped off. Nickel ~~the~~ strip solution need waste code

Gold cartridges ?
Gold strip solution ?

LQG

No solvent degreasing, aqueous

Gold plating

Same as nickel plating for substrate
Rinse
Gold strike → flash of gold
Run current, gold installed on surface
Anodes → titanium mesh w platinum coating → anode (inert)
Potassium gold cyanide
Strike solution used independently
If contamin, pumped for reclamation to ADS

Gold plating tank → hard gold
Nickel in solution w gold for a harder deposit.
Electronics, connector parts, pins
Potassium gold cyanide
Inert cathodes, electrical current
etc: Part is cathode, gold deposited on it

Soft gold deposit → doesn't have nickel, otherwise the same

Gold drag out → static tank
Plating cell + current picks up gold

Rinse tanks → counterflow
DI rinse

Hot deionized water final rinse tank
Line 5

Line 1 = nickel + alkaline tin + acid tin

Line 2 = smaller tanks, tin plating, tin-lead, nickel
Parts requiring solderability

Line 3 = nickel plating
Barrel line → barrel plating + large volume of small parts.
Barrel w plastic mesh screen w trap doors. Barrel will rotate (little parts → nuts + bolts).

Line 4 → Electroless plating Nickel.
Used on aluminum substrate

1 soap cleaner
- caustic etch → remove surface oxidation
- acid solution (remove smut) nitric + sulfuric acid
- zincate → put a layer of zinc on aluminum
- nitric acid → zincate again
- electroless nickel → catalytic reaction ~~or~~ zinc is replaced by nickel.
autocatalytic

Can't deposit electrolytically on aluminum.
Electroless nickel solution → pH rated, nickel plated out onto steel wool.
Solution goes thru wastewater treatment.
Steel wool w nickel → sent out as scrap.

Analytical Chem lab.
Solutions are analyzed weekly (minimum). Wet analysis (titration) AA → flame absorption. Solutions from

baths go back in ~~go~~ baths
No HW generated

~~S~~ No SAA

1 waste storage area

Filter cake stored in super sacks.

Walk thru

Line 5

Filters used in nickel baths + gold baths, filter out particulates and/or organics in gold + nickel plating baths.

4 open ~~15~~ 15 gal carboys Open, unlabeled
All nickel filters

Line 1 1 5 gal open green bucket, black liquid, 3/4 full

1 5 gal black liquid 1/2 full

1 15 gallon blue open carboy, 1/4 full, clearish liquid

2 30 gal open containers yellow - clear liquid, unlabeled

1 10 gal container ⇒ dark yellow

1 55 gal unlabeled container

Hot oil (water soluble) reflows the tin (for brighter surface)
Hot oil @ melting pt of tin

ask for MSDS; Diana says non-hazardous

Still bagging 1 → 1 55 gal drum, closed
ammonium etch cleaners line 4 tank 4 6/4/03 } on drum, per Diana doesn't pertain to what ...

Farther down line → 1 55 gal drum, unlabeled

1 box spent nickel filters west side of facility

center bldg → 1 open 55 gal drum, 1/8 full. Thinks cadmium, will verify

2 15 gal unlabeled carboys, one both corroded

1 5 gal, open container, 3/4 full, greenish liquid ("cadmium destructor")

Next → 3 15 gal, 1/4 full, 1/8 full, 1/8 full

farther down: 4 55 gal drums

2 labeled: line 3, copper flow 3-13-03

2 labeled copper rinse 3-13-03

All containers labeled "Fontana"

2 15 gal carboys (black)
- 1 filled w white solid
- 1 filled w white solid 3" liquid

1 5 gallon red bucket, clear liquid, yellow solid on bottom

Line 2 & 4 in tubes (1 yellow, 1 black, filled w milky flow)

End line 4: 1 5 gal red bucket labeled "Haz Waste", open 1/8 full clear liquid w yellow deposit. T.N. STR 106

1 10 gal white open container 1/3 full yellow sludge

1 5 gal red bucket closed. Unlabeled

Blasting booth → silicon aluminum oxide, pumice Spent grit goes w filter cake

Electroless nickel pumping room: Catch basin for electroless nickel plating solution. (pipes expand w heat & leak)

20 gal white container at end, gray, foamy liquid

1 bucket stainless steel wool

w nickel

Line 3

unlabeled {
5 gal blue unlabeled bucket
5 gal white, open, brown liquid
2 gal " " "
5 gal, red, 1/8 full, black liquid
10 gal blue, 2/3 full open black "

15 gal blue, 3/4 full black liquid (unlabeled)

Waste storage yard

21 drums D002? waste from nickel stripping / spent electroless solution (stripping area)

Berm filled w liquid 15' x 10', stripping area litmus paper ~~done~~, read @ 1

32+24 = 56 drums need to be ID'ed. Not labeled

34+56 = 90 drums

150 gal white container F006 labeled correctly

6 tote bags F006, 1 unlabeled

9 55 gal drums
4 unlabeled
5 no acc start date (except 2003")
4 open

5 → ID'd as "nickel filters

2 900 gal containers, closed properly labeled D00 ID
"nitric acid

3 numbered drums

1 1100 gal tank, open, 2" from top, label says "treated sludge", clear liquid on top

1 drum 6 5 8
cyanide filters
1 drum nickel filters } no
1 drum cyanide filters } start date

2500 gal "cadmium treatment"
~~coag~~ Coagulate per Diane
Cadmium line shut down
last June. Need waste
determination 1/8 full

2 fire ext
1 emergy eye wash

1 2000 gal cation-anion rinse, regeneration sludge
3-9-03

1 2500 gal tank alkaline sludge
leaked, pumped into bin @ 3 wks
~~B~~ ago. Bins unlabeled
(D002)
Tank unlabeled

Outside south wall
4 drums nickel stripper
(D002) unlabeled has
acc start date 11-14-03 (2)
11-5-03 (1) 11-3-03 (1)

12 more drums unlabeled

Lab
Sulfuric acid waste
1/8 full Haz Waste label
not filled out

5 gal solution chemical
analysis of bath solution,
open w/ funnel

nickel filters 1

Record review

manifest: OK

contingency plan → will mail
biennial report → will mail
training records → will see if have & mail

Associated Plating Co.
November 17, 2003 Monday Arrival 8:47 AM

- CUPA records w/
  2/02 Inspection → NN
  3/03 ok

Diane Crane (DC)
Quality Mgr

In brief
- aluminum alloy
  steel stainless
  Cu
  Ag
  composite materials & plastics
  } plate these

☐ company literature
plate Cu, Ni, electroless Ni, Sn
tin-Pb alloys, Au, Ag

most common metal plate is Nickel
bulb holders, electronics
- process
① alkaline soak/clean to remove oils/soil
  changed out of tank varies
  ~ every 3-6 months
  ~ pH 12-13
  neutralizes it, add CaCl-

spent solution is pumped to WWT
all tanks part of WWT [DC]
whatever is stored in the tanks is directed to WWT
different tanks for different metals
~ 4 lines
4 alkaline tanks

② electro-cleaner - also alkaline solution
clean parts using current
volume capacity 130 - 70 gal
pH 12-13
changed out - same frequency as ① tank

③ rinse tanks
600 gal largest volume capacity
deionized system
2 twin beds + caustic soda
use sulfuric acid to strip resin beds down
one acidic, one alkaline, neutralize together
~ 5-7 years changed
rinses may contain Ni, dissolved metals except tin rinses → which go directly to clarifier
precious metals Ag, Au - have drag out and recovery

(3a) deionization process: add caustic soda - will strip off metals sulfates, Cl⁻, nitrates
acidic, - Cu, Ni, Pb, lead

(4) acid - usu. HCl @ 30%
~ every 2 months - spent changeout
- want to use spent acid & spent alkaline so usu. if empty out acid tank, will look @ emptying out one of cleaners solutions → neutralize it to about pH=9 when metals precipitate out

(5) Ni strike(??) then Ni plate
- Ni strike combination HCl, NiCl
In order to have plating have good adherence at high current
- Ni plate - no e⁻ current used - but still put Ni on substrate
very rarely changed out -
contamination often Cu (from brass) -
Contamination can be removed w/o complete change-out

* rinse in b/w Ni strike & Ni plate

(6) After #5, can stop or continue w/ additional plating
Au - primarily
Sometimes Tin, Ag

Facility Info
- 18,000 sq. ft
50 ppl employed
Since mid 1970s in operation

- generated wastes [DC]
· filter cake
[ ] · strip solutions, from Ni plating from mistakes
disposed of as waste - federal waste
at least daily - also hots a source of Ni
· gold cartridges
· gold strip solutions for reclaim
· no perchloroethylene no more
· no more parts degreasing - all aqueous

Gold Plating Process
(1) from Ni - rinse → gold strike → anode - inert just (+) charge
to deposit Gold → titanium mesh w/ platinum coating
potassium gold cyanide, soluble w/ e⁻ current
deposits gold on part [cathode - this is the (-)]
spent strike solution used indefinitely
if contaminated, send off to precious metal recovery [send to ADS]

(2) Gold plate
- "hard gold" - has Ni in it "brighter"
electronic parts - also potassium AuCN used
- "soft gold" - no Ni in solution

③ Gold dragout
plating rail w/ e⁻ running to pick up gold from drag-in - capture a lot of Au

④ Rinse Tank

⑤ Static Hot DI water Rinse Tank

Small barrel gold line - "Line 5"

Line 1 - Ni, alkaline Tin, acid Tin
2 - Tin, Tin-Pb, Ni
electrical parts - for solderability, use Tin
3 - barrel line, Ni, barrel plating
4 - electroless Ni
5 - gold line

* barrel = large volume w/ small parts to be plated - usually Ni

* electroless Ni on Al:
- soap clean / alkaline - a bit milder
- caustic etch - remove sulfur oxidation
- acid solution - nitric / sulfuric acid
- zincate - put layer on Zn
- acid solution again
- zincate again - Zn replaces

- electroless nickel - autocatalytic
$ZnSO_4$ still soluble - no current e⁻
use instead of Al NC can't use e⁻ on Al
spent electroless Ni solution - plate it out - raise pH - nickel plated out steel wool
solution at 10ppm → WWT
☐ steel wool rinsed out some years ago
P/U by some company

Laboratory Chem
solutions are analyzed at least weekly on-site
wet analysis - titration
AA
spent solutions → WWT
no HW generated

- no SAAs on site
- 1 waste storage area - use Superpacs
- electroless Ni product
- Cd baths, Ni baths → trying to sell
- strip solutions must be hauled away

Waste - Things
LINE 5
☐ "X-ray in use" sign in Lab

① Ni line process Line 5 Pg P4, P5
SQA - for non RCRA waste - Ni filters
4 plastic containers - no HW label

(P11)

6 containers w/ no labels - 3 "product" rinses from tank will be re-used "chromate"

P6, P7, [] 1 - green bucket no labels - open } black/green liquid
CP 1 black bucket ~ 5 gal

P8 1 labelled electroless Ni solution ~ 20 gal

P10 [] - 55 gal white drum - oil - H80S
CP probably spent oil from hot oil

P9 [] (P) 1 55 gal black drum - possible SAA
P9 possibly 002 - need the determination
eventually goes to WWT

P12 [] (P) 1 55 gal - no label,

P13 CP Box of used/new filters same as Ni on
Lines - paper box

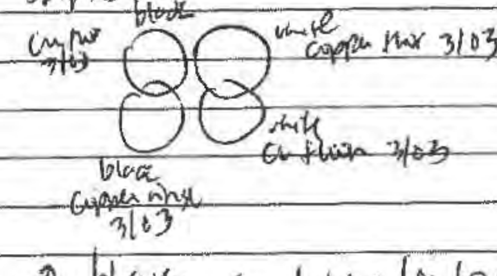
P14, CP [] 1 - 55 gal to receive Rain water - open,
no label

P15 CP [] 2 closed ~ 30 gal plastic containers -
no labels, no HW determination

P16 CP 1 55 gal no label by cyanide destruction
on a white - open

[] 3 black plastic no labels w ~ 20 gal
P17 total volume

P18, 4 55-gal plastic containers dated ~ 3/03
P19, SAAs



CPS + 2 black + 1 blue (on top) P20, P21

CP [] 1 ~ 10 gal green - no label P22

CP [] Line 2 - 4 graduated cylinder/blue drum
1 white gal drum P23

CP P26 1 red 10 gal - open the label - no date
P24, P25 1 white 10-gal open orange liquid inside

[] CP Sandblasting unit P27, P28
· spent grit goes w/ filter cake
· Al substrate

Pump Room behind Line 2 P29
CP 1 gal tied to [illegible]

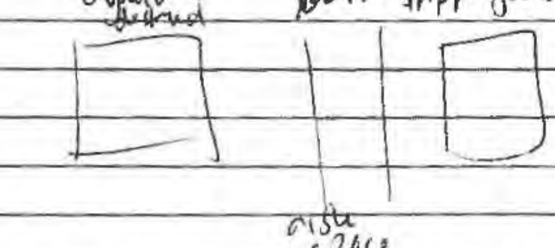
Line 3 and Line 6 P30, P31
CP open bucket 4 white, white, red, blue
+ 2 blue containers 1 closed, 1 open - total 5 open

[P]

D 1 - 30 gal opu

Welding shop
cutting MS McMaster Carr Part

90-Day Storage Area
P32 - 18 drums total w/ aisle space in between
P33 no HW labels - shipped off-site for
disposal
possibly DU2
no accumulation start dates
nickel strip - basic
cyanide / stripping area

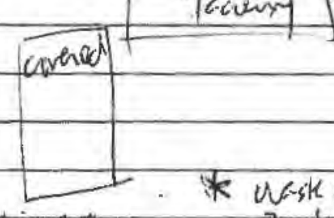


+ 3 drums in cyanide distinct area
accumulation date begin w/ pumping of tank

(D) Shipping area = [P] 15 x 10' area - berm overfilled
water pumped out
(OW2?) water can flow into cyanide
distinct system berm
P34 pH paper indicates H2O in shipping area
berm is 1

fire extinguisher ~ 20 ft from shipping area

outdoor yard w/ fence P35 front view
P36
P37
P38
P39



* waste drums
product drums
- shipping area
- cyanide

✓ 38 55 gal drums
+ 4 55 gal drums

total ~ 53 / 51 drums

[P] (A) 1 supersac - no label P40
aisle space for supersacs

(B) ✓ 56 drums included those under pallets P41, P42
for res sampling

(C) 34 drums w/ i bermed area P43, P44

non RCRA nickel filters waste
supersac = 1 cubic yd
6 supersacs total - all properly labelled,
except 1 P40
P45 3 supersacs - empties - no aisle space

P46 (D) 9 drums behind shipping area
P47 accumulation start date 2003
HW labels but not filled out
4 w/ HW labels

\+ 2 unnumbered drums

P48 (E) 1 large tank open labeled "treated sludge"
P49 [ ] dated 11/12/03 w/ HW label ~110 gals
about to spill

P50 (F) ~ 6 drums w/ nickel & cyanide filters
P51 2 labeled HW label cyanide filters
dated 6/5/03, no date

Emergency eye station (1) observed behind shipping area - appears old, unfunctional

P52 + 1 behind Cd holding tank
P53

1 more fire extinguisher - HOTEL of 2
in outdoor storage area

P54 [ ] Cd corrosive of holding tanks
2 white poly totes

"cation/anion regeneration rinses, sludge

D(P) 1 large white tank w/ DDWZ waste
no label, no ASD ~250 gals
leaking so pumped in roll-off loading drums
HW label on back side dated 3/19/03
cation/anion

(G) south end of WWTP
P55 4 drums of nickel stripper dated 11/3/03
(2) 11/14/03 / 11/5/03 - DDWZ

(H) ~ 8 drums P56, P57, P58,
Cd strip 1/14/03
Ag stripper 1/22/03
" " 1/21/03
fuse oil 1/2/03
Ni stripper 11/3/03
fuse oil 1/2/03 # 48
Ni stripper 11/5/03 # 49
3 way ACKL 2003
acid 11/2/03
tin Pb line 3 5/22/03 # 54

\# 42 unreadable Ni stripper 1/24/03
fuse oil 1/2/03

Chem Lab
DPJ 2 10-gal drums w/ open funnels
P59 labeled "acid waste" + "202"
P60 need HW determination
\- can be empty daily = as ASD

Information Needed:

- non RCRA waste for Ni filters in Ltr 5 [4]
- west Line 1 - 3 containers: 1 green, 2 black [3]
- " - 1 spent oil [1]
- " - 1 black drum [1]
- " - 1 55-gal [1]
- back end - box of used filters [1]
- east Line 1 - 1 55-gal [1]

Resume inspection at 1:28 PM

grey - already hauled off
yellow - 1st priority

look at Oct 17th 2003 spreadsheet

- M-8 pump also a problem
- backup on sewer line - explains why outdoor tanks are not being processed
problem fixed last Thursday
failed
- Ni line shutdown in April/June 2003
Electroless Ni - present it

Records Review

1 person responsible for HW Ken Hergesheimer
Wastetreatment Operator - position title
Ken's training dated Aug 20, 2003

[] training records for Diana Crane

1. Manifests - last 2003 manifests

F009	waste cyanide solution	8/21/2003
F008	spent gold filters	8/15/2003
D002	P 15/024	7/17/03

- 2002 manifests
regular off-site shipments at least every 2 wks
F001 PCE 02/7/2002

- 2001 manifests
CA 223 used oil 12/21/01

- also frequent shipment w/ LDEs
- mostly PPVD

2. contingency plan

3. training records
   - job descriptions

4. inspection logs
   - how logs - no volumes of output listed
   - checking them off w/o checking

Outbrief

Issues
- inspection report
- 2 wks to review report
- discuss as CBI, if needed

~193 drums
~175 drums per CUPA